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 DICTIONARY FILE UPDATES: 23 OCT 2007 HIGHEST RN 951288-30-5

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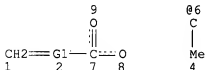
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 on property searching in REGISTRY, refer to:

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=> d sta que l22  
 L15 STR



VAR G1=CH/6  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE  
 L20 SCR 1992 OR 2016 OR 2021 OR 2026 OR 2039 OR 2054 OR 2050 O  
 R 2049 OR 2053 OR 13  
 L22 58016 SEA FILE=REGISTRY SSS FUL L15 NOT L20

100.0% PROCESSED 204128 ITERATIONS 58016 ANSWERS  
 SEARCH TIME: 00.00.01

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FILE COVERS 1907 - 25 Oct 2007 VOL 147 ISS 18

FILE LAST UPDATED: 24 Oct 2007 (20071024/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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L261 ANSWER 1 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:1080962 HCAPLUS

DN 142:56868

TI (Meth)acrylic ester of polyalkoxylated glycol and the use thereof

IN Riegel, Ulrich; Daniel, Thomas; Weismantel, Matthias; Elliott, Mark; Funk, Ruediger; Schwalm, Reinhold

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 62 pp.

CODEN: PIXX2D

DT Patent

LA German

FAN.CNT 7

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004108795	A1	20041216	WO 2004-EP6033	20040604 <--
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CA 2527362	A1	20041216	CA 2004-2527362	20040604 <--

EP 1636291 A1 20060322 EP 2004-736051 20040604  
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 JP 2006527179 T 20061130 JP 2006-508273 20040604  
 MX 2005PA12802 A 20060222 MX 2005-PA12802 20051128 <--  
 US 2006247377 A1 20061102 US 2005-558996 20051201 <--  
 PRAI WO 2003-EP5953 A 20030606 <--  
 DE 2003-10358369 A 20031211  
 DE 2002-10225943 A 20020611  
 DE 2003-10315345 A 20030403 <--  
 DE 2003-10315669 A 20030404 <--  
 WO 2003-EP305953 A 20030606  
 WO 2004-EP6033 W 20040604  
 OS MARPAT 142:56868  
 AB (Meth)acrylic esters of polyalkoxylated glycols  
 H<sub>2</sub>CC(R<sub>1</sub>)C(:O)(AO)p<sub>1</sub>[OCH<sub>2</sub>CH<sub>2</sub>]nO(AO)p<sub>2</sub>C(:O)C(R<sub>2</sub>)CH<sub>2</sub> (AO = OCHR<sub>3</sub>CH<sub>2</sub> or  
 CHR<sub>3</sub>CH<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> = H or C<sub>1</sub>-8 alkyl, p<sub>1</sub> and p<sub>2</sub> = 1 - 35, n = 1 - 100,  
 R<sub>1</sub> and R<sub>2</sub> = H or Me) are used as crosslinking agents in manufacturing of  
 crosslinked hydrogels showing high absorption capacity and useful as  
 absorbents for disposable diapers, sanitary napkins, etc. Thus, mixing  
 propoxylated ethylene glycol 506, acrylic acid 200, H<sub>2</sub>SO<sub>4</sub> (esterification  
 catalyst) 5 weight parts with 345 weight parts of methylcyclohexane, adding  
 hydroquinone monomethylether 2,  $\alpha$ -tocopherol 2, hypophosphoric acid  
 1, and water 36 weight parts gave an ester useful as crosslinking agent for  
 manufacturing of hydrogel by copolymerization of acrylic acid and sodium acrylate.

## RETABLE

Referenced Author (RAU)	Year (RPy)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Cognis, I.	2003			EP 1270530 A	HCAPLUS
Iwagami, S	1982			US 4351922 A	HCAPLUS
Nippon Catalytic Chem I	1993			EP 0559476 A	HCAPLUS
Weismantel, M	2002			WO 02060983 A	HCAPLUS

L261 ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:857643 HCAPLUS

DN 141:350865

 TI Mixtures of polyalkoxylated trimethylolpropane (meth)acrylates for  
 crosslinked hydrogel manufacturing.

 IN Popp, Andreas; Daniel, Thomas; Schroeder, Juergen; Jaworek,  
 Thomas; Funk, Ruediger; Schwalm, Reinhold; Weismantel, Matthias;  
 Riegel, Ulrich

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 7

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087790	A2	20041014	WO 2004-EP3551	20040402 <--
WO 2004087790	A3	20041216		
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 CA 2520719 A1 20041014 CA 2004-2520719 20040402 <--  
 EP 1613685 A2 20060111 EP 2004-725321 20040402 <--  
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 BR 2004009007 A 20060328 BR 2004-9007 20040402 <--  
 JP 2006524275 T 20061026 JP 2006-504980 20040402 <--  
 US 2006212011 A1 20060921 US 2005-551630 20051104 <--  
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 WO 2003-EP5953 A 20030606 <--  
 DE 2002-10225943 A 20020611 <--  
 WO 2003-EP305953 A 20030606  
 WO 2004-EP3551 W 20040402  
 OS MARPAT 141:350865  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB A mixture of  $\geq 2$  polyalkoxylated trimethylolpropane (meth)acrylates I,  
 II, III (AO1, AO2 and AO3 = EO, PO or/and BO, EO = OCH<sub>2</sub>CH<sub>2</sub>, PO = OCH<sub>2</sub>CHCH<sub>3</sub>  
 or OCH(CH<sub>3</sub>)CH<sub>2</sub>, BO = OCH<sub>2</sub>CH<sub>2</sub>Et or OCH(Et)CH<sub>2</sub>, p1 + p2 + p3 = 28 - 75, n1 +  
 n2 + n3 = 28 - 60, m1 + m2 + m3 = 4 - 13, R1, R2 and R3 = H or CH<sub>3</sub>) prepared  
 by reacting a mixture of alkoxylated trimethylolpropanes with (meth)acrylic  
 acid in the presence of  $\geq 1$  esterification catalyst and  $\geq 1$   
 polymerization inhibitor is used as crosslinking agent for manufacture of a  
 swellable  
 crosslinked hydrogel (superabsorbing polymer), as raw material for paints,  
 as additives to cement and for polymer dispersion and polyacrylates manufacture  
 Hydrogel manufacture comprises steps of (a) radical polymerization of an ester  
 mixture  
 with (meth)acrylic acid optionally in the presence of monoethylenically  
 unsatd. compds., hydrophilic monomers (such as sodium acrylate) and  
 radical initiators, (b) drying and (c) milling of the resulting mixture  
 This, mixing 1427 weight parts of ethoxylated and propoxylated  
 trimethylolpropane, 216 weight parts of acrylic acid, 5 weight parts of H<sub>2</sub>SO<sub>4</sub>  
 in  
 345 weight parts of methylcyclohexane, adding 3 weight parts of hydroquinone  
 monomethyl ether, 1 weight part of triphenylphosphite, 1 weight part of  
 hypophosphoric acid gave (after removing an azeotropic water) a polymer  
 having viscosity 330 mPa s, used as a crosslinking agent for acrylic acid  
 and sodium acrylate for swellable hydrogel manufacturing  
 IT 824950-59-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(crosslinked hydrogel; mixture of polyalkoxylated trimethylolpropane (meth)acrylates for swellable crosslinked hydrogel (superabsorbing polymer) manufacture)

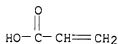
RN 824950-59-6 HCAPLUS

CN 2-Propenoic acid, polymer with methyloxirane diblock polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na

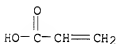


● Na

CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

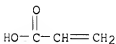
CRN 824950-31-4

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 4

CRN 79-10-7

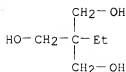
CMF C3 H4 O2



CM 5

CRN 77-99-6

CMF C6 H14 O3



CM 6

CRN 697765-47-2  
CMF (C3 H6 O . C2 H4 O) x  
CCI PMS

CM 7

CRN 75-56-9  
CMF C3 H6 O



CM 8

CRN 75-21-8  
CMF C2 H4 O



IT 824950-31-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

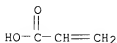
(polyalkoxylated trimethylolpropane (meth)acrylates; mixture of polyalkoxylated trimethylolpropane (meth)acrylates for swellable crosslinked hydrogel (superabsorbing polymer) manufacture)

RN 824950-31-4 HCAPLUS

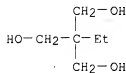
CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7  
CMF C3 H4 O2



CM 2

 CRN 77-99-6  
 CMF C6 H14 O3


CM 3

 CRN 697765-47-2  
 CMF (C3 H6 O . C2 H4 O)x  
 CCI PMS

CM 4

 CRN 75-56-9  
 CMF C3 H6 O


CM 5

 CRN 75-21-8  
 CMF C2 H4 O


L261 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:857543 HCAPLUS

DN 141:350828

TI Mixtures of at least two (meth)acrylates having at least two double bonds for manufacture of hydrogels

IN Riegel, Ulrich; Daniel, Thomas; Hermeling, Dieter; Elliott, Mark; Schwalm, Reinhold

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004087635	A2	20041014	WO 2004-EP3348	20040330 <--
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EP 1613583	A2 20060111	EP 2004-724254 20040330 <--
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DE 2003-10358372	A 20031211	<--
DE 2002-10225943	A 20020611	<--
WO 2004-EP3348	W 20040330	<--



OS MARPAT 141:350828  
 AB Title mixts. for use as crosslinkers in the manufacture of superabsorbent hydrogels with high hydrolysis resistance and particle formation during manufacture have GFV 200-600 g/mol double bonds, with GFV =  $\sum n_i = 1 = \alpha_i \text{MW}_i / Z_i$  ( $\sum n_i = 1$ ,  $\alpha_i$  = mol fraction of compound (i) in the mixture, n [number of compds. in mixture]  $\geq 2$ ,  $Z_i$  = number of double bonds in compound (i),  $\text{MW}_i$  = mol. weight of compound (i)). A typical hydrogel was manufactured by radical polymerization of 220 g acrylic acid, 2201 g 37.3% aqueous Na acrylate solution, and 5.1 g mixture containing 69.3% 30:5 ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate and 30.7% Laromer TPGDA.  
 IT 202532-81-8P, Acrylic acid-polyethylene glycol trimethylolpropane ether triacrylate-sodium acrylate copolymer  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (control; mixts. of at least two (meth)acrylates having at least two double bonds for crosslinkers for manufacture of hydrogels for nonwoven fabrics).  
 RN 202532-81-8 HCAPLUS  
 CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA INDEX NAME)

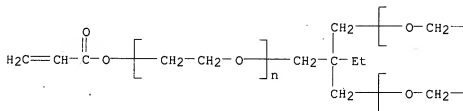
CM 1

CRN 28961-43-5

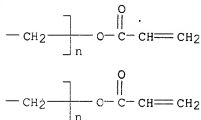
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6

CCI PMS

PAGE 1-A

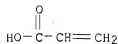


PAGE 1-B



CM 2

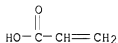
CRN 7446-81-3  
CMF C3 H4 O2 . Na



● Na

CM 3

CRN 79-10-7  
CMF C3 H4 O2



IT 117989-76-1P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

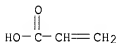
(crosslinker; mixts. of at least two (meth)acrylates having at least two double bonds for crosslinkers for manufacture of hydrogels)

RN 117989-76-1 HCAPLUS

CN Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (CA INDEX NAME)

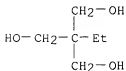
CM 1

CRN 79-10-7  
CMF C3 H4 O2



CM 2

CRN 77-99-6  
CMF C6 H14 O3



CM 3

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8

CMF C2 H4 O



IT 190600-43-2P, Acrylic acid-polyethylene glycol glycerol ether triacrylate-sodium acrylate copolymer 774577-40-1P, Acrylic acid-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-Laromer TPGDA-sodium acrylate copolymer 774577-49-0P, Acrylic acid-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-sodium acrylate copolymer 774577-50-3P, Acrylic acid-butanediol diacrylate-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-sodium acrylate copolymer 774577-51-4P, Acrylic acid-ethylene oxide-propylene oxide copolymer glycerol ether triacrylate-Laromer TPGA-sodium acrylate copolymer 774577-52-5P, Acrylic acid-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-sodium acrylate-trimethylolpropane trimethacrylate copolymer 774577-53-6P, Acrylic acid-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-glycerol diacrylate-sodium acrylate copolymer 774577-55-8P, Acrylic acid-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-polyethylene glycol glycerol ether triacrylate-sodium acrylate copolymer 774577-77-4P, Acrylic acid-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-polyethylene glycol trimethylolpropane ether triacrylate-sodium acrylate copolymer 774580-85-7P, Acrylic acid-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-polyethylene glycol diacrylate-sodium acrylate copolymer 774580-94-8P, Acrylic acid-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-polypropylene glycol glycerol ether triacrylate-sodium acrylate copolymer 774585-84-1P, Acrylic acid-polyethylene glycol glycerol ether triacrylate-polyethylene glycol trimethylolpropane ether triacrylate-sodium acrylate copolymer RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (mixts. of at least two (meth)acrylates having at least two double

bonds for crosslinkers for manufacture of hydrogels)  
 RN 190600-43-2 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha, \alpha', \alpha''$ -1,2,3-  
 propanetriyltris[ $\omega$ -[(1-oxo-2-propenyl)oxylpoly(oxy-1,2-ethanediyl)]  
 and sodium 2-propenoate (9CI) (CA INDEX NAME)

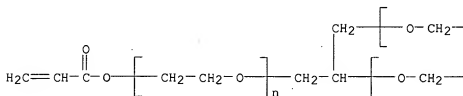
CM 1

CRN 101661-95-4

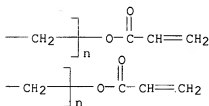
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C12 H14 O6

CCI PMS

PAGE 1-A



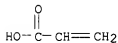
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

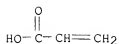


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



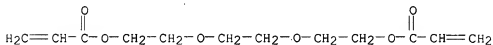
RN 774577-40-1 HCAPLUS  
 CN 2-Propenoic acid, polymer with (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] di-2-propenoate, methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 42978-66-5

CMF C15 H24 O6

CCI IDS

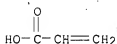


3 ( D1-Me )

CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

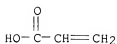


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

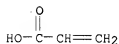
CRN 117989-76-1

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 5

CRN 79-10-7

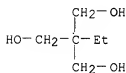
CMF C3 H4 O2



CM 6

CRN 77-99-6

CMF C6 H14 O3



CM 7

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 8

CRN 75-56-9

CMF C3 H6 O



CM 9

CRN 75-21-8

CMF C2 H4 O



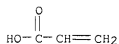
RN 774577-49-0 HCAPLUS

CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na

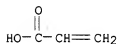


● Na

CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

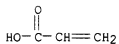
CRN 117989-76-1

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 4

CRN 79-10-7

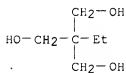
CMF C3 H4 O2



CM 5

CRN 77-99-6

CMF C6 H14 O3



CM 6

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 7

CRN 75-56-9

CMF C3 H6 O



CM 8

CRN 75-21-8

CMF C2 H4 O



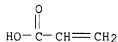
RN 774577-50-3 HCAPLUS

CN 2-Propenoic acid, polymer with 1,4-butanediyl di-2-propenoate, methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na

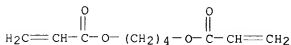


● Na

CM 2

CRN 1070-70-8

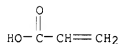
CMF C10 H14 O4





CM 3

CRN 79-10-7  
CMF C3 H4 O2

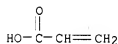


CM 4

CRN 117989-76-1  
CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . . 3 C3 H4 O2

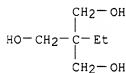
CM 5

CRN 79-10-7  
CMF C3 H4 O2



CM 6

CRN 77-99-6  
CMF C6 H14 O3



CM 7

CRN 9003-11-6  
CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 8

CRN 75-56-9  
CMF C3 H6 O



CM 9

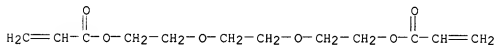
CRN 75-21-8  
CMF C2 H4 O



RN 774577-51-4 HCAPLUS  
CN 2-Propenoic acid, polymer with (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] di-2-propenoate, methyloxirane polymer with oxirane ether with 1,2,3-propanetriol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

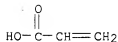
CRN 42978-66-5  
CMF C15 H24 O6  
CCI IDS



3 ( D1-Me )

CM 2

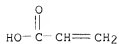
CRN 7446-81-3  
CMF C3 H4 O2 . Na



● Na

CM 3

CRN 79-10-7  
CMF C3 H4 O2



CM 4

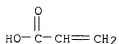
CRN 111804-95-6

CMF C3 H8 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 5

CRN 79-10-7

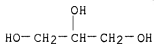
CMF C3 H4 O2



CM 6

CRN 56-81-5

CMF C3 H8 O3



CM 7

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 8

CRN 75-56-9

CMF C3 H6 O



CM 9

CRN 75-21-8

CMF C2 H4 O

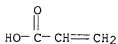


RN	774577-52-5	HCAPLUS
CN	2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[[2-methyl-1-oxo-2-propenyl]oxy]methyl]-1,3-propanediyl ester, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, 2-propenoic acid and sodium 2-propenoate (9CI) (CA INDEX NAME)	

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na

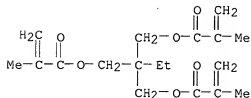


● Na

CM 2

CRN 3290-92-4

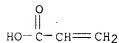
CMF C18 H26 O6



CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

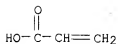
CRN 117989-76-1

$$\text{CMF} \quad \text{C}_6 \text{H}_{14} \text{O}_3 \cdot 3 (\text{C}_3 \text{H}_6 \text{O} \cdot \text{C}_2 \text{H}_4 \text{O})_x \cdot 3 \text{C}_3 \text{H}_4 \text{O}_2$$

CM 5

CRN 79-10-7

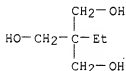
CMF C3 H4 O2



CM 6

CRN 77-99-6

CMF C6 H14 O3



CM 7

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 8

CRN 75-56-9

CMF C3 H6 O



CM 9

CRN 75-21-8

CMF C2 H4 O



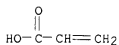
RN 774577-53-6 HCAPLUS

CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, 1,2,3-propanetriol di-2-propenoate and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na

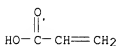


● Na

CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

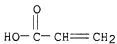
CRN 117989-76-1

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) x . 3 C3 H4 O2

CM 4

CRN 79-10-7

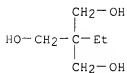
CMF C3 H4 O2



CM 5

CRN 77-99-6

CMF C6 H14 O3



CM 6

CRN 9003-11-6  
CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 7

CRN 75-56-9  
CMF C3 H6 O



CM 8

CRN 75-21-8  
CMF C2 H4 O

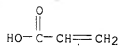


CM 9

CRN 52174-50-2  
CMF C9 H12 O5  
CCI IDS

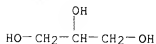
CM 10

CRN 79-10-7  
CMF C3 H4 O2



CM 11

CRN 56-81-5  
CMF C3 H8 O3



RN 774577-55-8 HCAPLUS  
CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether

with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate,  $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and sodium 2-propenoate (9CI) (CA INDEX NAME)

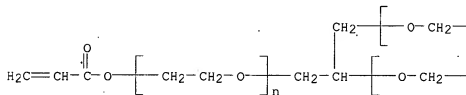
CM 1

CRN 101661-95-4

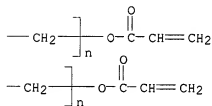
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n Cl2 H14 O6

CCI PMS

PAGE 1-A



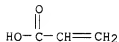
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na



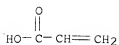
● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2





CM 4

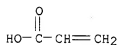
CRN 117989-76-1

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 5

CRN 79-10-7

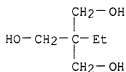
CMF C3 H4 O2



CM 6

CRN 77-99-6

CMF C6 H14 O3



CM 7

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 8

CRN 75-56-9

CMF C3 H6 O



CM 9

CRN 75-21-8

CMF C2 H4 O



RN 774577-77-4 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

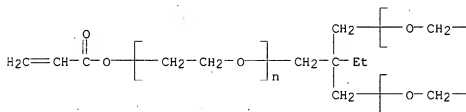
CM 1

CRN 28961-43-5

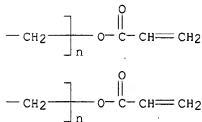
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CCI PMS

PAGE 1-A



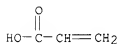
PAGE 1-B



CM 2

CRN 7446-81-3

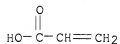
CMF C3 H4 O2 . Na



● Na

CM 3

CRN 79-10-7  
CMF C3 H4 O2

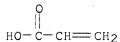


CM 4

CRN 117989-76-1  
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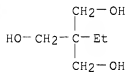
CM 5

CRN 79-10-7  
CMF C3 H4 O2



CM 6

CRN 77-99-6  
CMF C6 H14 O3



CM 7

CRN 9003-11-6  
CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 8

CRN 75-56-9  
CMF C3 H6 O



CM 9

CRN 75-21-8

CMF C2 H4 O



RN 774580-85-7 HCAPLUS

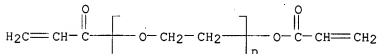
2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate,  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9

CMF (C2 H4 O)<sub>n</sub> C6 H6 O3

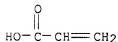
CCI PMS



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

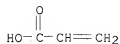


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

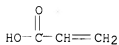
CRN 117989-76-1

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 5

CRN 79-10-7

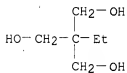
CMF C3 H4 O2



CM 6

CRN 77-99-6

CMF C6 H14 O3



CM 7

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 8

CRN 75-56-9

CMF C3 H6 O



CM 9

CRN 75-21-8

CMF C2 H4 O



RN 774580-94-8 HCAPLUS  
 CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether  
 with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate,  
 $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ $\omega$ -[(1-oxo-2-  
 propenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)]] and sodium 2-propenoate  
 (9CI) (CA INDEX NAME)

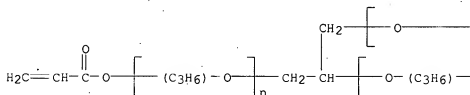
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CRN 52408-84-1

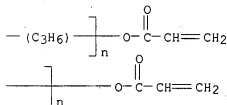
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CCI IDS, PMS

PAGE 1-A



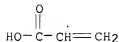
PAGE 1-B



CM 2

CRN 7446-81-3

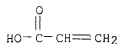
CMF C3 H4 O2 . Na .



• Na

CM 3

CRN 79-10-7  
CMF C3 H4 O2

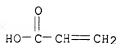


CM 4

CRN 117989-76-1  
CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

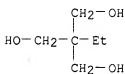
CM 5

CRN 79-10-7  
CMF C3 H4 O2



CM 6

CRN 77-99-6  
CMF C6 H14 O3



CM 7

CRN 9003-11-6  
CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 8

CRN 75-56-9  
CMF C3 H6 O



CM 9

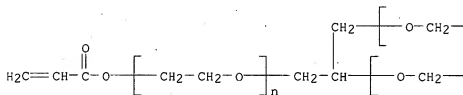
 CRN 75-21-8  
 CMF C2 H4 O


RN 774585-84-1 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1),  $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and sodium 2-propenoate (9CI) (CA INDEX NAME)

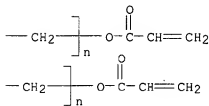
CM 1

CRN 101661-95-4  
 CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C12 H14 O6  
 CCI PMS

PAGE 1-A



PAGE 1-B

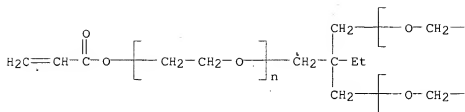


CM 2

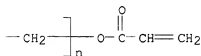
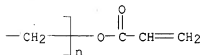
CRN 28961-43-5  
 CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C15 H20 O6  
 CCI PMS



PAGE 1-A



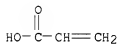
PAGE 1-B



CM 3

CRN 7446-81-3

CMF C3 H4 O2 . Na

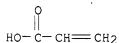


● Na

CM 4

CRN 79-10-7

CMF C3 H4 O2



L261 ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:328852 HCAPLUS

DN 140:340384

TI Production and use of super-absorbent foams

PA BASF A.-G., Germany

jan delaval - 25 october 2007

SO Ger. Offen., 27 pp.

CODEN: GWXXBX

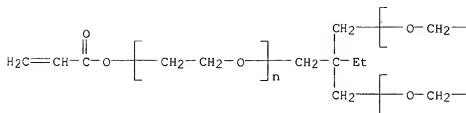
DT Patent

LA German

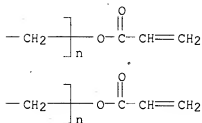
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PI	DE 10247241	A1	20040422	DE 2002-10247241	20021010 <--
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003271685	A1	20040504	AU 2003-271685	20031006 <--
	EP 1562650	A2	20050817	EP 2003-753507	20031006 <--
	EP 1562650	B1	20070214		
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	CN 1711112	A	20051221	CN 2003-80102974	20031006 <--
	JP 2006503134	T	20060126	JP 2004-544080	20031006 <--
	AT 353673	T	20070315	AT 2003-753507	20031006 <--
	US 2006020049	A1	20060126	US 2005-530373	20050406 <--
	ZA 2005003680	A	20060726	ZA 2005-3680	20050509 <--
PRAI	DE 2002-10247241	A	20021010	<--	
	WO 2003-EP11013	W	20031006		
AB	The title films, with good wet-fastness, contain super-absorbent synthetic fibers or natural fibers (e.g., apple, orange, tomato, wheat, or oat fibers). Adding 2.69 mol triethanolamine to a stirred mixture of 4.84 mol acrylic acid, 0.54 mol 37.3% Na acrylate, and ethoxylated trimethylolpropane triacrylate 28, 15% ethoxylated fatty alc. 21.33, and H2O 65.70 g with ice cooling at ≤16°, adding 2.4% (based on monomers) superabsorbent fibers (Fiberdri P 8/00 1231), pressurizing with CO2 (12 bar), adding 26.67 g 3% aqueous 2,2'-azobis(2-amidinopropane).2HCl, spraying the monomer foam on a glass plate with edges 3 mm high, covering with a 2nd glass plate, exposing the plate to UV light for 4 min, and drying at 70° in vacuo gave a foam with a homogeneous, open-cell foam structure, d. 0.20, and no skin formation.				
IT	202532-81-8P RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (cellular; production and use of super-absorbent foams)				
RN	202532-81-8 HCAPLUS				
CN	2-Propenoic acid, sodium salt (1:1), polymer with α-hydro-ω-[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA INDEX NAME)				
CM	1				
CRN	28961-43-5				
CMF	(C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6				
CCI	PMS				

PAGE 1-A



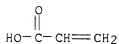
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

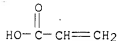


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



L261 ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:198187 HCAPLUS

DN 140:236731

TI Water-absorbing agents and procedure for their production

PA BASF A.-G., Germany

SO Ger. Offen., 15 pp.

CODEN: GWXXBX

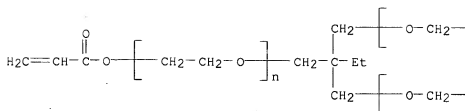
DT Patent

LA German

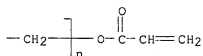
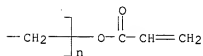
FAN.CNT 1

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PI	DE 10239074	A1	20040311	DE 2002-10239074	20020826 <--
	CA 2496448	A1	20040325	CA 2003-2496448	20030825 <--
	WO 2004024816	A1	20040325	WO 2003-EP9406	20030825 <--
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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	EP 1537177	A1	20050608	EP 2003-794935	20030825 <--
	EP 1537177	B1	20060816		
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	BR 2003013757	A	20050621	BR 2003-13757	20030825 <--
	CN 1678681	A	20051005	CN 2003-820446	20030825 <--
	JP 2005537131	T	20051208	JP 2004-535157	20030825 <--
	AT 336548	T	20060915	AT 2003-794935	20030825 <--
	ES 2271690	T3	20070416	ES 2003-3794935	20030825 <--
	US 2005245684	A1	20051103	US 2005-523913	20050207 <--
	MX 2005PA01851	A	20050603	MX 2005-PA1851	20050216 <--
	ZA 2005002432	A	20051004	ZA 2005-2432	20050324 <--
PRAI	DE 2002-10239074	A	20020826	<--	
	WO 2003-EP9406	W	20030825		
AB	Water absorbents are based on water-absorbent polymer particles coated with a polymer containing 5-17 mol N/kg. The medium/means contains an improved characteristic profile with high absorption capacity, improved liquid transport, and high wet-strength. A typical absorbent consists of acrylic acid-ethoxylated trimethylolpropane triacrylate-sodium acrylate copolymer particles coated with Basocoll PR 8092 (polyvinylamine with hydrolysis degree 75%, 15 mol N/kg).				
IT	202532-81-8, Acrylic acid-ethoxylated trimethylolpropane triacrylate-sodium acrylate copolymer				
	RL: TEM (Technical or engineered material use); USES (Uses) (water-absorbing agents based on water-absorbing particulate polymers coated with nitrogen-containing polymers)				
RN	202532-81-8 HCAPLUS				
CN	2-Propenoic acid, sodium salt (1:1), polymer with $\alpha$ -hydro- $\omega$ [(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA, INDEX NAME)				
CM	1				
CRN	28961-43-5				
CMF	(C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6				
CCI	PMS				

PAGE 1-A



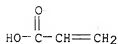
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

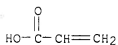


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



L261 ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:182734 HCAPLUS

DN 140:223366

TI Superabsorbent polymers containing clays for medical articles

IN Herfert, Norbert; Mitchell, Michael A.; Azad, Michael M.; Woodrum, Guy T.; Chiang, William G.-J.

PA BASF Aktiengesellschaft, Germany  
 SO PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004018006	A1	20040304	WO 2003-EP8092	20030724 <--
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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	JP 2005536599	T	20051202	JP 2004-530053	20030724 <--
	AT 320823	T	20060415	AT 2003-792228	20030724 <--
	ES 2258741	T3	20060901	ES 2003-379228	20030724 <--
	US 2005245393	A1	20051103	US 2005-523086	20050202 <--
	ZA 2005002354	A	20060531	ZA 2005-2354	20050322 <--
PRAI	US 2002-405783P	P	20020823	<--	
	WO 2003-EP8092	W	20030724		

OS MARPAT 140:223366

AB Surface-crosslinked superabsorbent polymer (SAP) particles, comprising (i) about 0.001% to 5% of a surface crosslinking agent; (ii) about 12% to 35% of a clay in the vicinity of the surfaces of the SAP particles, and (iii) 0% to about 25% of an inorg. network builder are disclosed. The clay is added to SAP particles during surface crosslinking to substantially reduce the generation, and recycling, of SAP fines, and to provide SAP particles having an improved acquisition rate of fluids and an improved permeability of a fluid through the swollen SAP particles. Diaper cores and absorbent articles containing the surface crosslinked SAP particles also are disclosed. For example, an SAP containing 80 weight% poly(acrylic acid) (PAA), 20 weight% sodium silicate, and free of SAP fines was surface crosslinked in the presence of a clay. Mixts. were prepared containing water (21 g), propylene glycol (21 g), kaolin clay slurry [143 g (10%), 246 g (20%), or 429 g (30%)], and ethylene glycol diglycidyl ether [2 g (0.2%) or 3 g (0.3%)], and applied to the SAP to provide SAP particles surface crosslinked with 0.2% or 0.3% ethylene glycol diglycidyl ether and containing 10%, 20%, or 30% kaolin clay in the vicinity of the SAP particle surfaces. The resulting surface-crosslinked SAP particles exhibited about a 10% performance improvement over identical surface-crosslinked SAP particles lacking a clay for typically measured properties, such as absorption under load (AUL) and centrifuge retention capacity (CRC). The surface-crosslinked particles of the present invention also exhibited a substantial increase in the saline flow conductivity (SFC), i.e., from about 20 x 107 cm3/sec/g to about 100 x 107 cm3/sec/g. Such a result is surprising for SAP particles containing 20% sodium silicate and 20% kaolin clay, for a total of 40% diluent in the SAP. The surface-treated SAP particles obtained are

more economical to prepare because they contain a high percentage of diluent, while surprisingly providing improved SAP particle performance.

IT 154457-96-2P, Acrylic acid-ethoxylated trimethylolpropane triacrylate copolymer  
 RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
 (manufacture of surface-crosslinked superabsorbent polymer particles containing

clay for medical articles)

RN 154457-96-2 HCAPLUS

CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxylpoly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

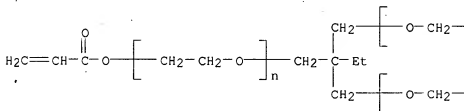
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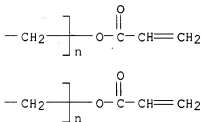
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CCI PMS

PAGE 1-A



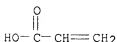
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CM 2

CRN 79-10-7

CMF C3 H4 O2



## RETABLE

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Basf Ag	2001			IWO 0168156 A	IHCAPLUS
Camelot Superabsorbents	1996			IWO 9630442 A	IHCAPLUS
Hatsuda, T	1992			IUS 5140076 A	IHCAPLUS
Messner, B	2000			IUS 6124391 A	IHCAPLUS
Stockhausen Chem Fab Gm	2001			IWO 0113965 A	IHCAPLUS

L261 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:182733 HCAPLUS

DN 140:223365

TI Superabsorbent polymers and method of manufacturing the same

IN Herfert, Norbert; Azad, Michael M.; Mitchell, Michael A.; Woodrum, Guy T.; Chiang, William G.-J.; Brown, Patricia D.; Robinson, James C.

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004018005	A1	20040304	WO 2003-EP8087	20030724 <--
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US 2005239942	A1	20051027	US 2005-522937	20050131 <--
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WO 2003-EP8087	W	20030724		

OS MARPAT 140:223365

AB Superabsorbent polymer (SAP) particles containing a clay are disclosed. The clay is added to an SAP hydrogel prior to SAP neutralization to provide particles having improved fluid acquisition rates and an improved permeability of a fluid through the swollen SAP-clay particles. Diaper cores and absorbent articles containing the SAP-clay particles also are disclosed. For example, a copolymer was prepared by reacting 1040 g of acrylic acid with 5.72 g of pentaerythritol triallyl ether, giving a solid gel that subsequently was subjected to mech. comminution. The comminuted gel (1000 g) was admixed with 8 g of a synthetic trioctahedral sheet silicate bearing the mineralogical designation saponite (SKS-20) suspended



in 210.8 g of water. Next, a sufficient amount of 50% aqueous sodium hydroxide solution to provide a 73 mol% neutralized poly(acrylic acid) was added. The resulting neutralized hydrogel-clay particles were dried, then ground and sieved. Twenty grams of the SAP-clay particles were sprayed with a homogeneous solution containing 0.5 g 1,2-propanediol, 0.5 g water, 0.02 g ethylene glycol diglycidyl ether (EGDGE), and 0.015 of aluminum sulfate, and heated at 140° to surface crosslink the SAP-clay particles.

IT 154457-96-2P, Acrylic acid-ethoxylated trimethylolpropane triacrylate copolymer

RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(manufacture of surface-crosslinked superabsorbent polymer particles containing clays for medical articles)

RN 154457-96-2 HCAPLUS

CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

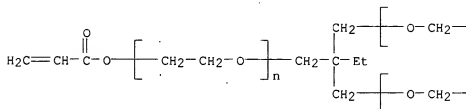
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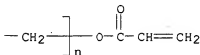
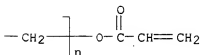
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CCI PMS

PAGE 1-A



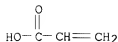
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CM. 2

CRN 79-10-7

CMF C3 H4 O2



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Alberta Res Council Inc	2000			WO 0073596 A	HCAPLUS
Amcol International Cor	1998			WO 9852979 A	HCAPLUS
Dupre, J	1982			US 4351754 A	HCAPLUS
Paragon Trade Brands In	2001			WO 0132117 A	HCAPLUS
Polak, B	1985			US 4535098 A	HCAPLUS
Procter & Gamble	1991			WO 9112031 A	HCAPLUS
Woodrum, G	1990			US 4914066 A	HCAPLUS

L261 ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:991565 HCAPLUS

DN 140:43143

TI Acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels

IN Popp, Andreas; Daniel, Thomas; Schroeder, Juergen; Jaworek, Thomas; Funk, Ruediger; Schwalm, Reinhold; Weismantel, Matthias; Riegel, Ulrich

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DT Patent

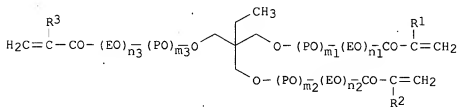
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US 7259212	B2	20070821
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WO 2003-EP5953	A	20030606 <--
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WO 2004-EP3348	W	20040330 <--

GI



I

AB Acrylic and/or methacrylic esters of alkoxyated trimethylolpropane have the general formula (I), where EO is -OCH<sub>2</sub>CH<sub>2</sub>-, PO independently represents -OCH<sub>2</sub>CH(CH<sub>3</sub>)- or -OCH(CH<sub>3</sub>)CH<sub>2</sub>-; n<sub>1</sub>, n<sub>2</sub>, n<sub>3</sub> are independently 4, 5 or 6; the total of n<sub>1</sub>, n<sub>2</sub> and n<sub>3</sub> equals to 14, 15 or 16; m<sub>1</sub>, m<sub>2</sub>, m<sub>3</sub> are independently 1, 2 or 3; the total of m<sub>1</sub>, m<sub>2</sub> and m<sub>3</sub> equals to 4, 5 or 6; and R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are independently H or CH<sub>3</sub>. The esters can be used as crosslinking agents in production of hydrogels, or as components in cement additive compns. or in production of polymer dispersions and lacquers. Thus, an alkoxyated trimethylolpropane was produced by reacting trimethylolpropane (77) in water in the presence of KOH (0.5) with propylene oxide (167) at 120-130°, followed by adding and reacting with ethylene oxide (379 g) at 145-155°. The alkoxyated trimethylolpropane (887) was mixed with acrylic acid (216) and esterified in the presence of H<sub>2</sub>SO<sub>4</sub> (5 parts) and polymerization inhibitors. The obtained alkoxyated trimethylolpropane triacrylate was used as a crosslinking agent in radical polymerization with acrylic acid and sodium acrylate.

IT

150604-34-5P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (acrylic esters of alkoxyated trimethylolpropane useful in production of

hydrogels)  
 RN 150604-34-5 HCAPLUS  
 CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-  
 (hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate), block  
 (9CI) (CA INDEX NAME)

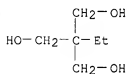
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CM 2

CRN 77-99-6  
 CMF C6 H14 O3



CM 3

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 CMF (C3 H6 O . C2 H4 O)x  
 CCI PMS

CM 4

CRN 75-56-9  
 CMF C3 H6 O



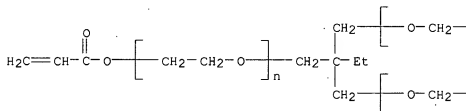
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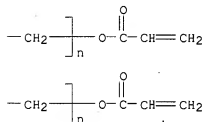


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 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
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 RN 202532-81-8 HCAPLUS  
 CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA INDEX NAME)  
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 CCI PMS

PAGE 1-A

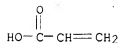


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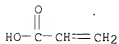
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• Na

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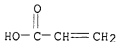
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RN 633314-15-5 HCAPLUS  
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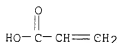
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CMF C3 H4 O2

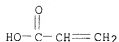


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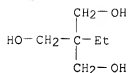
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CRN 79-10-7  
CMF C3 H4 O2



CM 5

CRN 77-99-6  
CMF C6 H14 O3



CM 6

CRN 106392-12-5  
CMF [C3 H6 O , C2 H4 O]x  
CCI PMS

CM 7

CRN 75-56-9  
CMF C3 H6 O



CM 8

CRN 75-21-8  
CMF C2 H4 O



IT 633314-14-4P

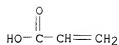
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(acrylic esters of alkoxyated trimethylolpropane useful in production of hydrogels)

RN 633314-14-4 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, block (9CI) (CA INDEX NAME)

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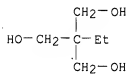
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CM 2

CRN 77-99-6

CMF C6 H14 O3



CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8

CMF C2 H4 O



## RETABLE

Referenced Author (RAU)	Year (RBY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Corp	2001			IWO 0156625 A	IHCAPLUS
Christensen, S	2001			IWO 0145758 A	IHCAPLUS
Gartner, H	1996			IUS 5506324 A	IHCAPLUS
Kushi, K	1994			IUS 5356754 A	IHCAPLUS

L261 ANSWER 9 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
AN. 2003:991564 HCAPLUS

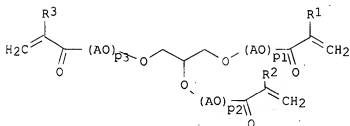


DN 140:43142  
 TI Acrylic esters of alkoxyated glycerol useful in production of hydrogels  
 IN Popp, Andreas; Daniel, Thomas; Schroeder, Juergen; Jaworek,  
 Thomas; Funk, Ruediger; Schwalm, Reinhold; Weismantel, Matthias;  
 Riegel, Ulrich  
 PA BASF Aktiengesellschaft, Germany  
 SO PCT Int. Appl., 68 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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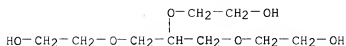
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AB Acrylic and/or methacrylic esters of alkoxyated glycerol have the general formula (I), where each AO independently represents EO or PO, EO being -OCH<sub>2</sub>CH<sub>2</sub>-, PO being -OCH<sub>2</sub>CH(CH<sub>3</sub>)- or -OCH(CH<sub>3</sub>)CH<sub>2</sub>-, the total of p<sub>1</sub>, p<sub>2</sub> and p<sub>3</sub> equals to 3, 4 or 5; and R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are independently H or CH<sub>3</sub>. The esters can be used as crosslinking agents in production of hydrogels, or as components in cement additive compns. or in production of polymer dispersions and lacquers. Thus, an ethoxylated glycerol was produced by reacting glycerol (77) with ethylene oxide (184) at 145-155° in water in the presence of KOH (0.5 g). The ethoxylated glycerol (255) was mixed with acrylic acid (216) and esterified in the presence of H<sub>2</sub>SO<sub>4</sub> (5 parts) and polymerization inhibitors. The obtained ethoxylated glycerol triacrylate was used as a crosslinking agent in radical polymerization with acrylic acid and sodium acrylate.

IT 634901-17-OP 634901-18-1P 635283-94-2P,  
Ethylene oxide-propylene oxide block copolymer glycerol ether (3:1) triacrylate, polymer with acrylic acid and sodium acrylate  
635283-95-3P, Ethylene oxide-propylene oxide copolymer glycerol ether (3:1) triacrylate, polymer with acrylic acid and sodium acrylate  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic esters of alkoxyated glycerol useful in production of hydrogels)  
RN 634901-17-0 HCAPLUS  
CN 2-Propenoic acid, polymer with 2,2',2''-[1,2,3-propanetriyltris(oxy)]tris[ethanol] and sodium 2-propenoate (9CI) (CA INDEX NAME)

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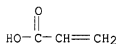
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CRN 7446-81-3

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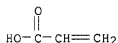


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CM 3

CRN 79-10-7

CMF C3 H4 O2



RN 634901-18-1 HCAPLUS

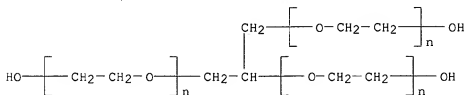
CN 2-Propenoic acid, polymer with  $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ $\omega$ -hydroxypoly(oxy-1,2-ethanediyl)] and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 31694-55-0

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C3 H8 O3

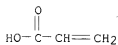
CCI PMS



CM 2

CRN 7446-81-3

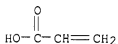
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● Na

CM 3

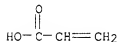
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CMF C3 H4 O2



RN 635283-94-2 HCAPLUS  
CN 2-Propenoic acid, polymer with methyloxirane block polymer with oxirane  
ether with 1,2,3-propanetriol (3:1) tri-2-propenoate, and sodium  
2-propenoate (9CI) (CA INDEX NAME)

CM 1

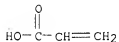
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CMF C3 H4 O2 . Na



● Na

CM .2

CRN 79-10-7  
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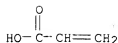


CM 3

CRN 635283-93-1  
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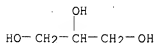
CM 4

CRN 79-10-7  
CMF C3 H4 O2



CM 5

CRN 56-81-5  
CMF C3 H8 O3



CM 6

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CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 7

CRN 75-56-9  
CMF C3 H6 O



CM 8

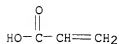
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CMF C2 H4 O



RN 635283-95-3 HCAPLUS  
CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether  
with 1,2,3-propanetriol (3:1) tri-2-propenoate, and sodium 2-propenoate  
(9CI) (CA INDEX NAME)

CM 1

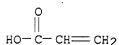
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CMF C3 H4 O2 . Na



● Na

CM 2

CRN 79-10-7  
CMF C3 H4 O2

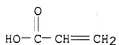


CM 3

CRN 111804-95-6  
CMF C3 H8 O3 . 3 (C3 H6 O . C2 H4 O) x . 3 C3 H4 O2

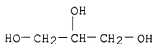
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CRN 79-10-7  
CMF C3 H4 O2



CM 5

CRN 56-81-5  
CMF C3 H8 O3



CM 6

CRN 9003-11-6  
CMF (C3 H6 O . C2 H4 O) x  
CCI PMS

CM 7

 CRN 75-56-9  
 CMF C3 H6 O

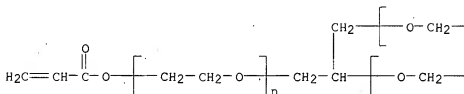

CM 8

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 CMF C2 H4 O

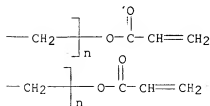

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 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (acrylic esters of alkoxyated glycerol useful in production of hydrogels)

RN 101661-95-4 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ $\omega$ -[(1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

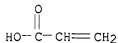


RN 111804-95-6 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), tri-2-propenoate (9CI) (CA INDEX NAME)

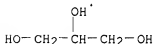
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CMF C3 H4 O2



CM 2

CRN 56-81-5  
CMF C3 H8 O3



CM 3

CRN 9003-11-6  
CMF (C3 H6 O . C2 H4 O) x  
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CM 4

CRN 75-56-9  
CMF C3 H6 O



CM 5

CRN 75-21-8  
CMF C2 H4 O

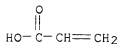


RN 635283-93-1 HCAPLUS  
CN Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), tri-2-propenoate, block (9CI) (CA INDEX NAME)

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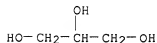


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CM 2

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CM 3

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CMF {C3 H6 O . C2 H4 O}x  
CCI PMS

CM 4

CRN 75-56-9  
CMF C3 H6 O



CM 5

CRN 75-21-8  
CMF C2 H4 O



# RETABLE

Referenced Author (RAU)	Year	VOL	PG I (RPY) I (RVL) I (RPG)	Referenced Work (RWK)	Referenced File
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Miller, H [1991] [321] [RADTECH 91] [HCAPLUS]

L261 ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:991563 HCAPLUS

DN 140:28395

TI Acrylic esters of alkoxyated trimethylolpropane useful in production of hydrogels

IN Popp, Andreas; Daniel, Thomas; Schroeder, Juergen; Jaworek, Thomas; Funk, Ruediger; Schwalm, Reinhold; Weismantel, Matthias; Riegel, Ulrich

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DT Patent

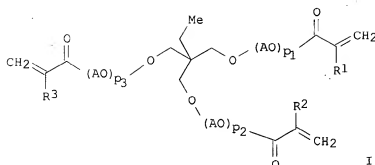
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DE 2003-10319462	A1	20030429	<--
WO 2003-EP305953	A	20030606	
WO 2003-EP5953	W	20030606	<--
WO 2003-EP6028	A	20030610	<--
WO 2003-EP6054	A	20030610	<--
DE 2003-10358369	A	20031211	
DE 2003-10358372	A	20031211	<--
WO 2004-EP3348	W	20040330	<--
WO 2004-EP3551	W	20040402	
WO 2004-EP6033	W	20040604	

GI



AB Acrylic and/or methacrylic esters of alkoxyated trimethylolpropane have the general formula (I), where each AO independently represents EO, PO or BO, EO being -OCH<sub>2</sub>CH<sub>2</sub>-, PO being -OCH<sub>2</sub>CH(CH<sub>3</sub>)- or -OCH(CH<sub>3</sub>)CH<sub>2</sub>-, BO being -OCH<sub>2</sub>CH(CH<sub>2</sub>CH<sub>3</sub>)- or -OCH(CH<sub>2</sub>CH<sub>3</sub>)CH<sub>2</sub>-; the total of p<sub>1</sub>, p<sub>2</sub> and p<sub>3</sub> equals to an integer from 28 to 75; and R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are independently H or CH<sub>3</sub>. The esters can be used as crosslinking agents in production of hydrogels, or as components in cement additive compns. or in production of polymer dispersions and lacquers. Thus, an alkoxyated trimethylolpropane was produced by reacting trimethylolpropane (77) in water in the presence of KOH (0.5) with ethylene oxide (759) at 145-155°, followed by adding and reacting with propylene oxide (167 g) at 120-130°. The alkoxyated trimethylolpropane (1,427) was mixed with acrylic acid (216) and esterified in the presence of H<sub>2</sub>SO<sub>4</sub> (5 parts) and polymerization

inhibitors.

The obtained alkoxyated trimethylolpropane triacrylate was used as a crosslinking agent in radical polymerization with acrylic acid and sodium acrylate.

IT 150604-34-5P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(acrylic esters of alkoxyated trimethylolpropane useful in production of hydrogels)

RN 150604-34-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate), block (9CI) (CA INDEX NAME)

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CRN 79-41-4

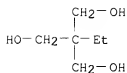
CMF C4 H6 O2



CM 2

CRN 77-99-6

CMF C6 H14 O3



CM 3

CRN 106392-12-5  
CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 4

CRN 75-56-9  
CMF C3 H6 O



CM 5

CRN 75-21-8  
CMF C2 H4 O



IT 202532-81-8P 633314-15-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic esters of alkoxyated trimethylolpropane useful in production of hydrogels)

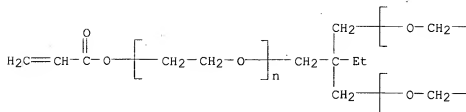
RN 202532-81-8 HCAPLUS

CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -  
[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with  
2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA  
INDEX NAME)

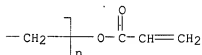
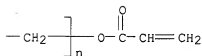
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CCI PMS

PAGE 1-A



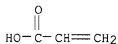
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

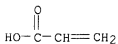


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2

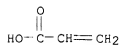


RN 633314-15-5 HCAPLUS

CN 2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9Ci) (CA INDEX NAME)

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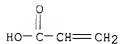
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CMF C3 H4 O2 . Na



● Na

CM 2

CRN 79-10-7  
CMF C3 H4 O2

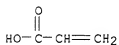


CM 3

CRN 633314-14-4  
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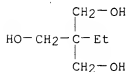
CM 4

CRN 79-10-7  
CMF C3 H4 O2



CM 5

CRN 77-99-6  
CMF C6 H14 O3



CM 6

CRN 106392-12-5  
CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 7

CRN 75-56-9  
CMF C3 H6 O



CM 8

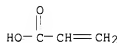
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CMF C2 H4 O



IT **633314-14-4P**  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(acrylic esters of alkoxyated trimethylolpropane useful in production of  
hydrogels)  
RN 633314-14-4 HCAPLUS  
CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-  
(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, block (9CI) (CA  
INDEX NAME)

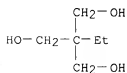
CM 1

CRN 79-10-7  
CMF C3 H4 O2



CM 2

CRN 77-99-6  
CMF C6 H14 O3





CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8

CMF C2 H4 O



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
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Basf Ag	1988			EP 0264841 A	HCAPLUS
Dai Ichi Kogyo Seiyaku	1999			EP 0923147 A	HCAPLUS
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Hartmann, H	1997			US 5661220 A	HCAPLUS
Kushi, K	1994			US 5356754 A	HCAPLUS
Matsushita Electric Ind	1997			EP 0777287 A	HCAPLUS
Ritter, W	1997			US 5648518 A	HCAPLUS

L261 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:991562 HCAPLUS

DN 140:43131

TI Production of crosslinked hydrogels using esters of polyalcohols and unsaturated carboxylic acids

 IN Jaworek, Thomas; Daniel, Thomas; Wolf, Lothar; Koeniger, Rainer;  
Schwalm, Reinhold; Hartmann, Gabriele; Wickel, Stefan

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 7

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WO 2003104299	A1	20031218	WO 2003-EP5940	20030606 <--
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 JP 2005533875 T 20051110 JP 2004-511365 20030606 <--  
 US 2005176910 A1 20050811 US 2004-514569 20041201 <--  
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PRAI DE 2002-10225943 A 20020611 <--  
 WO 2003-EP5940 W 20030606

OS MARPAT 140:43131

AB A crosslinked hydrogel is produced by a process comprising the steps of (a) reacting a polyalcal. A with at least one ethylenically unsatd. carboxylic acid B in the presence of an esterification catalyst C, at least one polymerization inhibitor D and, optionally, a solvent E forming an azeotrope with water under conditions of synthesis of an ester F, (b) optionally, removing at least a part of water from the reaction mixture during and/or after the step (a), (c) optionally, neutralizing the reaction mixture, (d) removing the optional azeotrope-forming solvent by distillation, (e) stripping the reaction mixture with an inert gas, (f) polymerizing the reaction mixture with optional monoethylenically unsatd. compds. N and at least one other hydrophilic monomer M in the presence of a radical initiator K and, optionally, a graftable substrate L, (g) optionally, crosslinking the polymerized mixture, (h) drying the polymer, and (i) optionally, grinding and/or sieving the polymer. Thus, ethoxylated trimethylolpropane (Polyol TP 70) (681) was mixed with acrylic acid (414) and esterified in methylcyclohexane (365) in the presence of H2SO4 (5 parts) and polymerization inhibitors with distilling off 102 parts of water formed during the reaction. The ethoxylated trimethylolpropane triacrylate was used as a crosslinking agent in polymerization with acrylic acid and sodium acrylate.

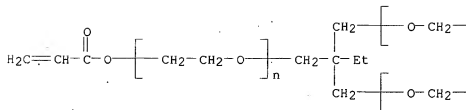
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 51728-26-8P, Ethoxylated pentaerythritol tetraacrylate  
 101661-95-4P, Ethoxylated glycerol triacrylate  
 104634-06-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (esters of polyalcal. and unsatd. carboxylic acids used in production of crosslinked hydrogels)

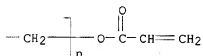
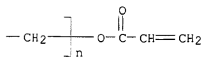
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CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (CA INDEX NAME)

PAGE 1-A



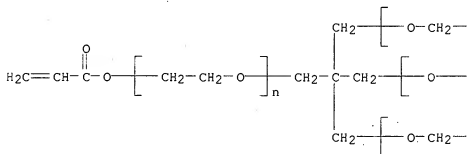
PAGE 1-B



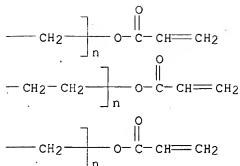
RN 51728-26-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]-  
, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1) (CA INDEX NAME)

PAGE 1-A

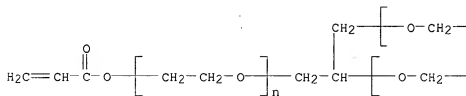


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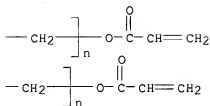


RN 101661-95-4 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha, \alpha', \alpha''$ -1,2,3-  
 propanetriyltris[ $\omega$ -(1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)

PAGE 1-A

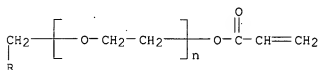
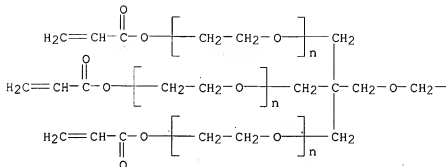


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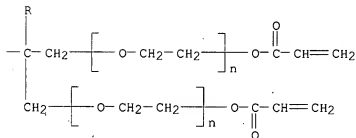


RN 104634-06-2 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -(1-oxo-2-propen-1-yl)oxy]-  
 , ether with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-  
 propanediol] (6:1) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 634615-80-8P 634615-81-9P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (production of crosslinked hydrogels using esters of polyalcs. and unsatd. carboxylic acids)

RN 634615-80-8 HCAPLUS

CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxyethylene)]bis[o  
 xirane], 1,2-propanediol,  $\alpha,\alpha',\alpha''$ -1,2,3-  
 propanetriyltris[ $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)]  
 and sodium 2-propenoate (9CI) (CA INDEX NAME)

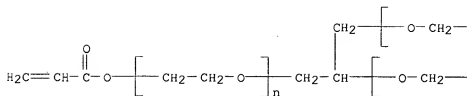
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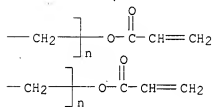
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CCI PMS

PAGE 1-A



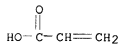
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CRN 7446-81-3

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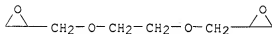


● Na

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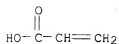
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CRN 79-10-7

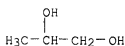
CMF C3 H4 O2



CM 5

CRN 57-55-6

CMF C3 H8 O2



RN 634615-81-9 HCAPLUS

CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxyethylene)]bis[o  
xirane],  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-  
ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1),  
1,2-propanediol and sodium 2-propenoate (9CI) (CA INDEX NAME)

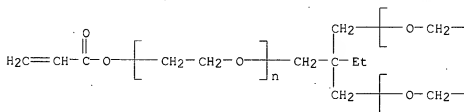
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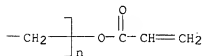
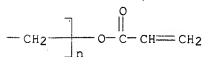
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CCI PMS

PAGE 1-A



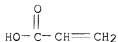
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

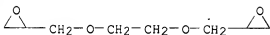


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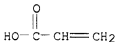
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CM 4

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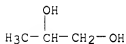
CMF C3 H4 O2



CM 5

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CMF C3 H8 O2



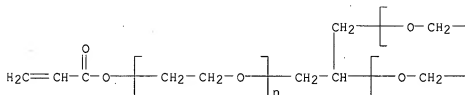
IT 190600-43-2P 202532-81-8P, Acrylic acid-ethoxylated trimethylolpropane triacrylate-sodium acrylate copolymer  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (production of crosslinked hydrogels using esters of polyalcs. and unsatd. carboxylic acids)  
 RN 190600-43-2 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

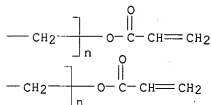


CRN 101661-95-4  
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 CCI PMS

PAGE 1-A

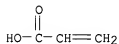


PAGE 1-B



CM 2

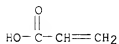
CRN 7446-81-3  
 CMF C3 H4 O2 . Na



• Na

CM 3

CRN 79-10-7  
 CMF C3 H4 O2



RN 202532-81-8 HCAPLUS  
 CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with

2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA  
INDEX NAME)

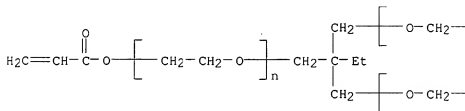
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CRN 28961-43-5

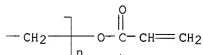
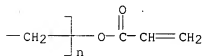
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CCI PMS

PAGE 1-A



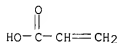
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

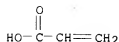


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Ag	1998			EP 0874014 A	HCAPLUS
Basf Corp	2001			WO 0156625 A	HCAPLUS
Beck, E	1998			US 5821383 A	HCAPLUS
Dow Chemical Co	1993			WO 9321237 A	HCAPLUS
Dow Chemical Co	2001			WO 0141818 A	HCAPLUS
Hoechst Celanese Corp	1989			EP 0331845 A	HCAPLUS
Ritter, W	1994			US 5350877 A	HCAPLUS
Speitkamp, L	1993			US 5198574 A	HCAPLUS
Stockhausen Chem Fab Gm	1998			WO 9847951 A	HCAPLUS

L261 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:653195 HCAPLUS

DN 139:198233

TI Water-absorbent, foam hydrogels with improved wet-strength, procedures for their production and its use

IN Champ, Samantha

PA BASF AG, Germany

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10205443	A1	20030821	DE 2002-10205443	20020208 <--
PRAI DE 2002-10205443		20020208	<--	

AB Water-absorbent, foam hydrogels are available by (I) foaming of a polymerizable of aqueous mixture containing (A) acid-containing monoethylenically

unsatd. monomers, which are neutralized to at least 50 mol%, (B) optionally, other monoethylenically unsatd. monomers, (C) acrylic acid-and/or methacrylic acid-esterified addition products from 6 to 24 mol ethylene oxide and 1 mol trimethylolpropane as crosslinking agent, (D) initiators, (E) at least a surfactant, (F) optionally, at least one release agent, and (G) optionally, thickeners, foam stabilizers, polymerization controllers, fibers, fillers and/or cell nucleating agents, whereby the foaming is done with radical-inert a gas under a pressure from 2 to 200 bar dissolved in the polymerizable aqueous mixture and subsequently on releasing

to atmospheric pressure and (II) polymerizing the foamed mixture while adjusting the

water content to 1-60%.

IT 202532-81-8P, Acrylic acid;ethoxylated trimethylolpropane triacrylate;sodium acrylate copolymer 582310-88-1P, Acrylic acid-ethoxylated trimethylolpropane triacrylate-polyethylene glycol diacrylate-sodium acrylate copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)

(water-absorbent acrylic foam hydrogels with improved wet-strength)

RN 202532-81-8 HCAPLUS

 CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -

[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with  
2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA  
INDEX NAME)

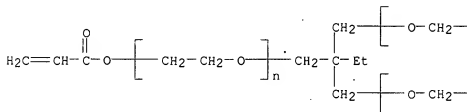
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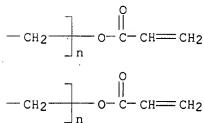
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CCI PMS

PAGE 1-A



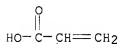
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CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

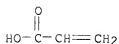


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



RN 582310-88-1 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1),  $\alpha$ -(1-oxo-2-propen-1-yl)- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) and sodium 2-propenoate (1:1) (CA INDEX NAME)

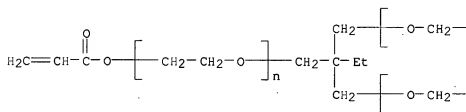
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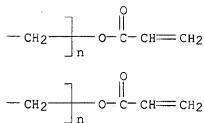
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CCI PMS

PAGE 1-A



PAGE 1-B

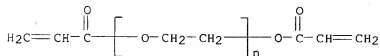


CM 2

CRN 26570-48-9

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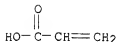
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CM 3

CRN 7446-81-3

CMF C3 H4 O2 . Na

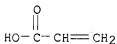


● Na

CM 4

CRN 79-10-7

CMF C3 H4 O2



L261 ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:511186 HCAPLUS

DN 139:86301

TI Absorbent articles containing superabsorbent polymer particles for hygiene products

IN Whitmore, Darryl L.; Engelhardt, Friedrich

 PA **BASF Aktiengesellschaft, Germany**

SO PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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PI	WO 2003053487	A1	20030703	WO 2002-EPI1516	20021015 <--
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	US 2003135172	A1	20030717	US 2002-300082	20021120 <--
PRAI	US 2001-341254P	P	20011220	<--	
	WO 2002-EPI1516	W	20021015	<--	

AB The invention relates to the use of a layer obtainable by a process comprising (A) forming a sprayable blend comprising one or more superabsorbent forming monomers superabsorbent polymer particles water,

and one or more initiators, (B) applying the sprayable blend on a fibrous web; and (C) subjecting the fibrous web to conditions under which the superabsorbent forming monomer with polymerize, as a storage layer for aqueous fluids. Thus an absorbent core structure, useful for manufacturing of adult incontinence garments and baby diapers, was prepared from an acquisition pad and a storage pad. The acquisition pad was prepared by coating a polyester nonwoven with a composition containing sodium acrylate-Sartomer SR 9035

copolymer,

crosslinked superabsorbent polyacrylic acid particles, Irgacure 2959, ammonium persulfate, and 2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride. The storage pad was prepared by coating a polyester nonwoven with a composition containing sodium acrylate-Sartomer SR

344

copolymer, crosslinked superabsorbent polyacrylic acid particles, Darocur 1173, ammonium persulfate, and 2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride.

IT

482593-21-5, Sodium acrylate-Sartomer SR 9035 copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(acquisition layer-containing; production of absorbent articles containing superabsorbent polymer particles for personal care products)

RN

482593-21-5 HCAPLUS

CN

2-Propenoic acid, sodium salt, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

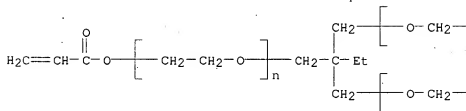
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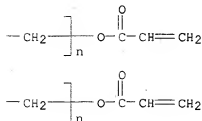
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6

CCI PMS

PAGE 1-A



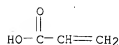
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na



• Na

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Ag	2002			WO 02094328 A	HCAPLUS
Basf Ag	2002			WO 02094329 A	HCAPLUS
Basf Corp	2001			WO 0156625 A	HCAPLUS
Mitsubishi Petrochemica	1988			EP 0290814 A	HCAPLUS
Moore, D	1993			IUS 5217445 A	
Procter & Gamble	1992			WO 9211830 A	
Trinh, T	1998			WO 9826808 A	HCAPLUS

L261 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:282437 HCAPLUS

DN 138:288493

TI Highly swellable hydrogels with acid centers

IN Funk, Ruediger; Herfert, Norbert; Wanior, Mariola

 PA **Basf Aktiengesellschaft, Germany**

SO PCT Int. Appl., 44 pp.

CODEN: PIXXD2

 DT **Patent**

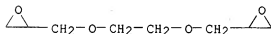
LA German

FAN.CNT 1

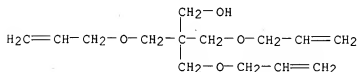
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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	AU 2002350462	A1	20030414	AU 2002-350462	20020926 <--
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	CN 1561234	A	20050105	CN 2002-819410	20020926 <--
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	AT 313342	T	20060115	AT 2002-785134	20020926 <--



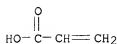
ES 2254760 T3 20060616 ES 2002-2785134 20020926 <--  
 US 2004249079 A1 20041209 US 2004-490403 20040323 <--  
 US 7144957 B2 20061205  
 PRAI DE 2001-10148565 A 20011001 <--  
 WO 2002-EP10793 W 20020926 <--  
 AB The invention relates to polymeric mixts. containing hydrogel-forming polymers with different pH values and which absorb aqueous fluids. Said polymeric mixts. can be produced by polymerization of olefinically unsatd. carboxylic acids or derivs. thereof. The invention also relates to the production and use of said polymeric mixts. and to the hygienic articles containing said polymeric mixts. The invention particularly relates to two-component polymeric mixts. from polymers with a pH range from acid to neutral. A typical blend contained 5 parts 2000:8.1 acrylic acid (I)-allyl methacrylate copolymer and 95 parts 6.9:33 I-pentaerythritol triallyl ether copolymer Na salt.  
 IT 506418-33-3P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (highly swellable hydrogels with acid centers based on polymer blends for hygienic articles)  
 RN 506418-33-3 HCAPLUS  
 CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[oxirane], 1,2-propanediol and 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol (9CI) (CA INDEX NAME)  
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 CRN 2224-15-9  
 CMF C8 H14 O4



CM 2  
 CRN 1471-17-6  
 CMF C14 H24 O4



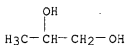
CM 3  
 CRN 79-10-7  
 CMF C3 H4 O2



CM 4

CRN 57-55-6

CMF C3 H8 O2



L261 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:221545 HCAPLUS

DN 138:255994

TI Super-absorbing hydrogels with specific particle size distribution, their production and their use

IN Hermeling, Dieter; Stueven, Uwe; Hoss, Ulrike

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

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PI	WO 2003022316	A1	20030320	WO 2002-EP9812	20020903 <--
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, FT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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	US 2004265387	A1	20041230	US 2004-486808	20040213 <--
PRAI	2001-10144072	A	20010907	<--	
	2001-318337P	P	20010912	<--	
	2002-10202839	A	20020124	<--	
	2002-EP9812	W	20020903	<--	

AB The invention relates to novel hydrophilic swellable acrylic polymers with a specific particle size distribution, which improves their water absorption capacity. In an example, Acrylic acid was copolymerized with Sartomer 344 and post-crosslinked with ethylene glycol diglycidyl ether to give a hydrogel product which was tempered under rotational conditions for

particle size and surface property control.  
 IT 166437-82-7P, Acrylic acid-ethylene glycol diglycidyl  
 ether-Sartomer 9035 copolymer 502497-76-9P, Acrylic  
 acid-ethylene glycol diglycidyl ether-1,2-propanediol-Sartomer 9035  
 copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (production of superabsorbent hydrogels with specific particle size  
 distribution)  
 RN 166437-82-7 HCAPLUS  
 CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[o  
 xirane] and  $\alpha$ -hydro- $\omega$ -(1-oxo-2-propenyl)oxy]poly(oxy-1,2-  
 ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)  
 (9CI) (CA INDEX NAME)

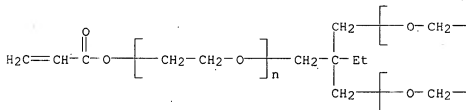
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CRN 28961-43-5

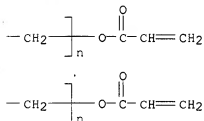
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CCI PMS

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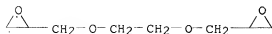
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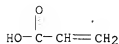
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CRN 2224-15-9

CMF C8 H14 O4



CM 3

 CRN 79-10-7  
 CMF C3 H4 O2


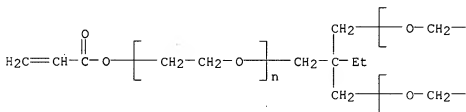
RN 502497-76-9 HCAPLUS

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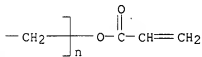
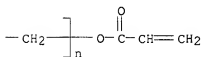
CM 1

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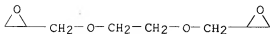
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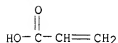
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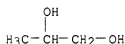
CM 2

 CRN 2224-15-9  
 CMF C8 H14 O4


CM 3

 CRN 79-10-7  
 CMF C3 H4 O2


CM 4

 CRN 57-55-6  
 CMF C3 H8 O2


## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Hatsuda, T	1998			US 5807361 A	HCAPLUS
John, B	1996			US 5505718 A	
Sanyo Chem Ind Ltd	1999			JF 11349625 A	HCAPLUS
Tai, E	1994			US 5374684 A	HCAPLUS

L261 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:22929 HCAPLUS

DN 138:90651

TI Manufacture of swellable acidic hydrogels for hygiene articles with improved odor control

IN Funk, Ruediger; Herfert, Norbert; Wanior, Mariola; Stueven, Uwe; Beck, Martin

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DT Patent

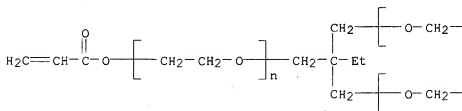
LA German

FAN.CNT 1

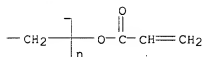
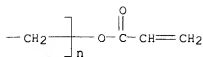
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003002623	A1	20030109	WO 2002-EP6877	20020621 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002316992	A1	20030303	AU 2002-316992	20020621 <--

EP 1425320 A1 20040609 EP 2002-745400 20020621 <--  
 EP 1425320 B1 20060920  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2004530777 T 20041007 JP 2003-509002 20020621 <--  
 AT 340199 T 20061015 AT 2002-745400 20020621 <--  
 ES 2271287 T3 20070416 ES 2002-2745400 20020621 <--  
 US 2004180189 A1 20040916 US 2003-480980 20031215 <--  
 US 2005234413 A1 20051020 US 2005-145653 20050606 <--  
 US 2007149716 A1 20070628 US 2007-706906 20070213 <--  
 PRAI DE 2001-10130671 A 20010628 <--  
 DE 2001-10142138 A 20010830 <--  
 DE 2001-10147713 A 20010927 <--  
 WO 2002-EP6877 W 20020621 <--  
 US 2003-480980 A3 20031215  
 US 2005-145653 B1 20050606  
 AB The title hydrogels comprise acrylic acid copolymers with pH  $\leq 5.7$   
 and neutralization degree  $\leq 60$  mol.%, preferably 20-30 mol.%. For  
 example, kneading aqueous solution containing acrylic acid, NaOH and  
 polyethylene glycol diacrylate (Sartomer 344) with aqueous solution of Na2S2S8 and ascorbic  
 acid at 75° under N gave copolymer gel particles which were sprayed  
 with dispersion of ethylene glycol diglycidyl ether in aqueous 1,2-propanediol  
 containing Al2(SO4)3 to give a surface-crosslinked hydrogel having pH 4.47,  
 saline flow conductivity 13.8  $\pm$  10<sup>-7</sup> cm3s/g, centrifuge retention capacity  
 20.7 g/g, absorbency under load (0.7 psi) 18.1 g/g, N content (from NH3)  
 1.8 mg/L and Nessler value 20%.  
 IT 28961-43-5DP, Polyethylene glycol trimethylolpropane ether  
 triacrylate, sodium salts  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (surface-crosslinked particles; manufacture of swellable acidic hydrogels.  
 for hygiene articles with improved odor control)  
 RN 28961-43-5 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]-  
 , ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (CA INDEX  
 NAME)

PAGE 1-A



PAGE 1-B



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Brandt, K	1988			US 32649 E	
Chem Fabrik Stockhausen	1997			DE 19529348 A	HCAPLUS
The Dow Chemical Co	1989			EP 0312952 A	HCAPLUS

L261 ANSWER 17 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:905938 HCAPLUS

DN 137:389245

TI Odor control-containing polymeric absorbent materials

IN Whitmore, Darryl L.; Engelhardt, Friedrich

 PA **Basf Aktiengesellschaft, Germany**

SO PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002094329	A1	20021128	WO 2002-EP5533	20020518 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
AU 2002314087	A1	20021203	AU 2002-314087	20020518 <--
PRAI-US 2001-292523P	P	20010523	<--	
WO 2002-EP5533	W	20020518	<--	

AB An odor control agent containing absorbent article obtained by (a) forming a blend comprising one or more monomers forming superabsorbent polymers, superabsorbent polymer particles, water, and one or more initiators, and (b) applying the blend onto a fibrous web and carrying out the polymerization

of the monomers. A disposable hygiene article containing an absorbent structure is described.

IT 28961-43-5, SR 9035

RL: DEV (Device component use); POF (Polymer in formulation); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)

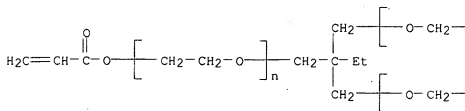
(preparation of superabsorbent polymer materials containing odor control

agent)

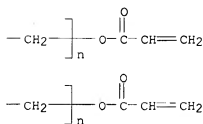
RN 28961-43-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Corp	2001			WO 0156625 A	HCAPLUS
Kimberly Clark Co	2000			WO 0050098 A	HCAPLUS
Procter & Gamble	1991			WO 9115177 A	
Trinh, T	1998			WO 9826808 A	HCAPLUS

L261 ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:905936 HCAPLUS

DN 138:8420

TI Absorbent article comprising a double-sided coated fibrous web having a storage layer on one side and an acquisition layer on the other side

IN Whitmore, Darryl L.; Engelhardt, Friedrich

PA Basf Aktiengesellschaft, Germany

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002094328	A2	20021128	WO 2002-EP5534	20020518 <--
	WO 2002094328	A3	20030403		
	WO 2002094328	B1	20031218		
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PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,  
 GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,  
 GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002338987 A1 20021203 AU 2002-338987 20020518 <--  
 PRAI US 2001-292511P P 20010523 <--  
 US 2001-341286P P 20011220 <--  
 WO 2002-EP5534 W 20020518 <--

AB An absorbent article comprising at least one double-sided coated fibrous web having a storage layer on one side and an acquisition layer on the other side and/or a combination of at least two adhering double-sided coated webs with the proviso that one web has a storage layer on both sides and the other web has an acquisition layer on both sides wherein said layers are obtained by (a) forming a blend comprising one or more monomers forming superabsorbent polymers, superabsorbent polymer particles, water, and one or more initiators, said blend having a viscosity of at least 20 mPas (measured at 20 °C in a Brookfield viscometer, spindle 02, 20 rpm) (b) applying said blend onto a fibrous web and (c) carrying out the polymerization of the monomers forming superabsorbent polymers and a disposable hygiene article containing said absorbent article. An acquisition layer and a storage layer, both containing acrylic acid and SR-9035 (ethoxylated trimethylolpropane triacrylate) were prepared and a layered absorbent core structure prepared from these layers.

IT 154457-96-2P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (absorbent article comprising a double-sided coated fibrous web having a storage layer on one side and an acquisition layer on the other side)

RN 154457-96-2 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

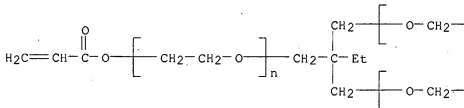
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CRN 28961-43-5

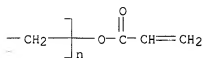
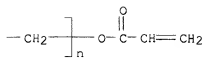
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6

CCI PMS

PAGE 1-A



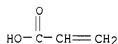
PAGE 1-B



CM 2

CRN 79-10-7

CMF C3 H4 O2



L261 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:574992 HCAPLUS

DN 137:141454

TI Water-absorbing agent, method for the production thereof and use of the same

IN Funk, Ruediger; Herfert, Norbert; Hoss, Ulrike

 PA **Basf Aktiengesellschaft, Germany**

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

 DT **Patent**

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002058841	A2	20020801	WO 2002-EP654	20020123 <--
	WO 2002058841	A3	20030109		
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2002246049	A1	20020806	AU 2002-246049	20020123 <--
PRAI	DE 2001-10103064	A	20010124	<--	
	WO 2002-EP654	W	20020123	<--	

AB The invention relates to a water-absorbing agent with improved water retention in particulate form and less interparticle adhesion, comprising particles of a water-absorbing polymer (such as allyl methacrylate-pentaerythritol triallyl ether copolymer) and between 0.1 and 4 weight %, (relative to the particulate polymer) fine particles of natural fiber.

IT 444189-91-7, Polyethylene glycol trimethylolpropane ether

acrylate-sodium acrylate copolymer

RL: AGR (Agricultural use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(particulate water-absorbing agents based on water-absorbing polymer hydrogels and fine particles of natural fibers)

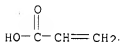
RN 444189-91-7 HCAPLUS

CN 2-Propenoic acid, sodium salt, polymer with  $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na



● Na

CM 2

CRN 37314-71-9

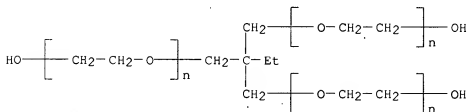
CMF C3 H4 O2 . x (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C6 H14 O3

CM 3

CRN 50586-59-9

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C6 H14 O3

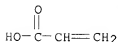
CCI PMS



CM 4

CRN 79-10-7

CMF C3 H4 O2



L261 ANSWER 20 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:314995 HCAPLUS

DN 136:326016

TI Production of crosslinked, water-swellaable polymers

IN Heide, Wilfried; Wickel, Stefan; Daniel, Thomas; Stueven, Uwe

PA Basf Aktiengesellschaft, Germany

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002032964	A2	20020425	WO 2001-EPI2031	20011017 <--
	WO 2002032964	A3	20021128		
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU	200210553	A	20020429	AU 2002-10553	20011017 <--
EP	1326898	A2	20030716	EP 2001-978432	20011017 <--
EP	1326898	B1	20050112		
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JP	2004511633	T	20040415	JP 2002-536345	20011017 <--
BR	2001014730	A	20040706	BR 2001-14730	20011017 <--
AT	286915	T	20050115	AT 2001-978432	20011017 <--
ES	2234902	T3	20050701	ES 2001-1978432	20011017 <--
CZ	297784	B6	20070328	CZ 2003-1084	20011017 <--
ZA	2003003812	A	20040813	ZA 2003-3812	20030516 <--
US	2004014901	A1	20040122	US 2003-399185	20030808 <--
PRAI	DE 2000-10051940	A	20001019	<--	
	WO 2001-EPI2031	W	20011017	<--	

AB The title polymers (hydrogels) with good absorptivity, absorption rate, and gel strength are prepared by polymerizing H2O-soluble, mono-unsatd. monomers

with 0.001-5 mol% (based on these monomers) 0.7-10:1 mixture of crosslinker bearing  $\geq 2$  (meth)acrylate groups and crosslinker bearing  $\geq 2$  (meth)allyloxy groups. Redox polymerization of a mixture of 40% aqueous acrylic acid

(77 mol% as Na salt) with 0.40% polyethylene glycol diacrylate and 0.10% pentaerythritol triallyl ether gave a white, flocculant gel with extractables (16 h) 4.0%; post-crosslinking of which gave a gel with pH 5.87, centrifuge retention capacity 24.9, absorption under pressure 25.3 and 24.1 at 0.5 and 0.7 psi, resp., and extractables (16 h) 2.4%.

IT 415725-49-4P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(hydrogels; production of crosslinked, water-swellaable polymers)

RN 415725-49-4 HCAPLUS

CN 2-Propenoic acid, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly[oxy-1,2-ethanediyl], 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol and sodium 2-propenoate (9CI) (CA INDEX

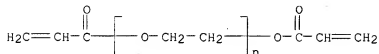
NAME)

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CRN 26570-48-9

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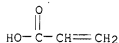
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CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

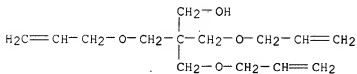


● Na

CM 3

CRN 1471-17-6

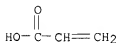
CMF C14 H24 O4



CM 4

CRN 79-10-7

CMF C3 H4 O2



DN 135:157746  
 TI Absorbent article for hygiene products  
 IN Whitmore, Darryl L.; Engelhardt, Friedrich  
 PA BASF Corporation, USA  
 SO PCT Int. Appl., 40 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001056625	A2	20010809	WO 2001-IB387	20010116 <--
	WO 2001056625	A3	20020328		
	W: BR, CA, JP, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	US 6417425	B1	20020709	US 2000-495209	20000201 <--
	MX 2000PA10845	A	20030425	MX 2000-PA10845	20000106 <--
	EP 1251886	A2	20021030	EP 2001-914087	20010116 <--
	EP 1251886	B1	20040811		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
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	JP 2003521349	T	20030715	JP 2001-556523	20010116 <--
	AT 273034	T	20040815	AT 2001-914087	20010116 <--
	EP 1470827	A2	20041027	EP 2004-17138	20010116 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	CA 2333212	A1	20010801	CA 2001-2333212	20010131 <--
	US 2003045847	A1	20030306	US 2002-105107	20020323 <--
	MX 2002PA07359	A	20021209	MX 2002-PA7359	20020730 <--
FRAI	US 2000-495209	A	20000201	<--	
	EP 2001-914087	A3	20010116	<--	
	WO 2001-IB387	W	20010116	<--	

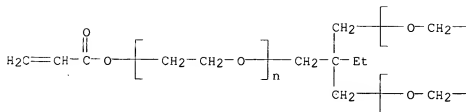
AB Absorbent articles and processes for making absorbent articles are provided. The process includes spraying onto a fibrous web a blend containing superabsorbent polymer particles, superabsorbent forming monomer, initiator and water, and subjecting the web to polymerization conditions. The resulting web is useful as an absorbent article particularly in disposable hygiene products. Particles were prepared from acrylic acid, water, NaOH, SR-9035 (Sartomer), and 2,2'-azobis[2-(2-imidazolin-2-yl)propane] 2 HCl.

IT 154457-96-2P  
 RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (absorbent article for hygiene products)  
 RN 154457-96-2 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

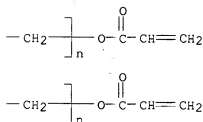
CM 1

CRN 28961-43-5  
 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6  
 CCI PMS

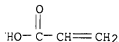
PAGE 1-A



PAGE 1-B



CM 2

 CRN 79-10-7  
 CMF C3 H4 O2


L261 ANSWER 22 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:491287 HCAPLUS

DN 131:130746

TI Crosslinking the surfaces of polymer hydrogels with boric acid esters

IN Funk, Ruediger; Frenz, Volker; Stueven, Uwe; Engelhardt, Fritz;

Daniel, Thomas

PA Clariant G.m.b.H., Germany

SO Ger., 8 pp.

CODEN: GWXXAW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19807501	C1	19990729	DE 1998-19807501	19980221 <--
	CA 2319455	A1	19990826	CA 1999-2319455	19990219 <--
	WO 9942515	A1	19990826	WO 1999-EP1093	19990219 <--
	W: CA, JP, MX, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
	PT, SE				
	EP 1056800	A1	20001206	EP 1999-910244	19990219 <--

jan delaval - 25 october 2007

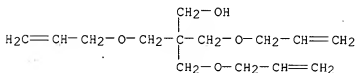
EP 1056800 B1 20020116  
 R: BE, DE, ES, FR, GB, IT, NL, SE  
 JP 2002504580 T 20020212 JP 2000-532466 19990219 <--  
 ES 2172310 T3 20020916 ES 1999-910244 19990219 <--  
 PRAI DE 1998-19807501 A 19980221 <--  
 WO 1999-EP1093 W 19990219 <--  
 AB Surfaces of polymer (e.g., acrylic acid-pentaerythritol triallyl ether Na salt) hydrogels are crosslinked by spraying the surfaces with solns. containing esters of H3BO3 and polyols, heating at 50-250°, and drying.  
 IT 233753-47-4P 233753-49-6P  
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (crosslinking the surfaces of polymer hydrogels with boric acid esters)  
 RN 233753-47-4 HCAPLUS  
 CN 2-Propenoic acid, polymer with 1,2-ethanediol ester with boric acid (H3BO3), and 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 233753-46-3  
 CMF (C14 H24 O4 . C3 H4 O2 . C2 H6 O2 . x B H3 O3)x  
 CCI PMS

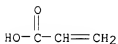
CM 2

CRN 1471-17-6  
 CMF C14 H24 O4



CM 3

CRN 79-10-7  
 CMF C3 H4 O2



CM 4

CRN 11098-42-3  
 CMF C2 H6 O2 . x B H3 O3

CM 5

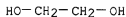
CRN 10043-35-3  
 CMF B H3 O3





CM 6

CRN 107-21-1  
CMF C2 H6 O2



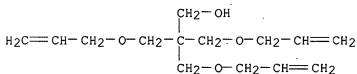
RN 233753-49-6 HCAPLUS  
CN 2-Propenoic acid, polymer with 1,2-propanediol ester with boric acid (H3BO3), and 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 233753-48-5  
CMF (C14 H24 O4 . C3 H8 O2 . C3 H4 O2 . x B H3 O3)x  
CCI PMS

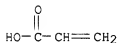
CM 2

CRN 1471-17-6  
CMF C14 H24 O4



CM 3

CRN 79-10-7  
CMF C3 H4 O2



CM 4

CRN 60267-33-6  
CMF C3 H8 O2 . x B H3 O3

CM 5

CRN 10043-35-3

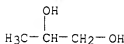
CMF B H3 O3



CM 6

CRN 57-55-6

CMF C3 H8 O2



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
-----	-----	-----	-----	-----	-----
Anon				EP 0083022 A	
Anon				EP 0530438 A	HCAPLUS
Anon				EP 0543303 A	HCAPLUS

L261 ANSWER 23 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:594779 HCAPLUS

DN 127:235140

TI Water-absorbent crosslinked acrylic polymer foams and their manufacture and use

IN Hahnle, Hans Joachim; Walter, Manfred; Tropsch, Jürgen; Kremeskotter, Jens; Schornick, Gunnar; Anstock, Thomas

PA BASF A.-G., Germany

SO PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CMT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9731971	A1	19970904	WO 1997-EP962	19970227 <--
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RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19607551	A1	19970904	DE 1996-19607551	19960228 <--
AU 9719243	A	19970916	AU 1997-19243	19970227 <--
EP 883646	A1	19981216	EP 1997-907048	19970227 <--
EP 883646	B1	20011024		
R: BE, DE, ES, FR, GB, IT, SE				
JP 2000506911	T	20000606	JP 1997-530610	19970227 <--
ES 2166068	T3	20020401	ES 1997-907048	19970227 <--
US 6174929	B1	20010116	US 1998-117294	19980826 <--
PRAI DE 1996-19607551	A	19960228	<--	
WO 1997-EP962	W	19970227	<--	

AB The invention concerns water-absorbent crosslinked polymers in foam form which are obtained by: (I) foaming a polymerizable aqueous mixture which comprises: (a) monoethylenically unsatd. monomers which contain acid

groups and are neutralized to at least 50 mol%, (b) optionally other monoethylenically unsatd. monomers, (c) crosslinking agents, (d) initiators, (e) between 0.1 and 20 wt % of at least one surfactant, (f) optionally at least one solubilizer, and (g) optionally thickening agents, foam stabilizers, polymerization regulators, fillers and/or cell nucleating agents, foaming occurring by dispersing fine bubbles of a gas which is inert with respect to radicals and (II) polymerizing the foamed mixture,

forming

a hydrogel foam, and optionally adjusting the water content of the polymer foam to between 1 and 60 wt %. The invention further concerns a process for preparing these polymers and their use in sanitary articles which are used to absorb body fluids, and in bandaging material for covering wounds. The unpolymd. foam exhibits good storage stability, processability, and dimension stability during polymerization. A typical polymerizable composition contained 37.3% aqueous Na acrylate solution 224.23, water 49.68, acrylic acid 21.36, ethoxylated tallow fatty acid (d.p. 80) 3.15, pentane 1.58, ethoxylated glycerol triacrylate (d.p. 20) 1.05, 1,4-butanediol diacrylate 0.53, and 3% aqueous 2,2'-azobis(2-amidinopropane)-2HCl solution 11.9 g.

IT 190600-42-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water-absorbent crosslinked acrylic polymer foams and their manufacture and use)

RN 190600-42-1 HCAPLUS

CN 2-Propenoic acid, polymer with 1,4-butanediyl di-2-propenoate,  $\alpha,\alpha',\alpha''$ -1,2,3-propanetriyltris[ $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and sodium 2-propenoate (9CI) (CA INDEX NAME)

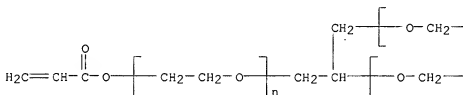
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CRN 101661-95-4

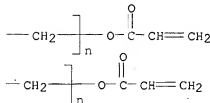
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C12 H14 O6

CCI PMS

PAGE 1-A



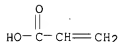
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

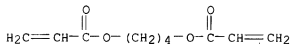


● Na

CM 3

CRN 1070-70-8

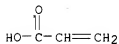
CMF C10 H14 O4



CM 4

CRN 79-10-7

CMF C3 H4 O2



L261 ANSWER 24 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:405767 HCAPLUS

DN 127:18377

TI Water-absorbing, foam-forming, acid group-containing acrylic polymers; and their manufacture and use

IN Haehnle, Hans-Joachim; Walter, Manfred; Tropsch, Juergen; Schornick, Gunnar; Anstock, Thomas

 PA **BASF A.-G., Germany**

SO Ger. Offen., 15 pp.

CODEN: GWXXBX

 DT **Patent**

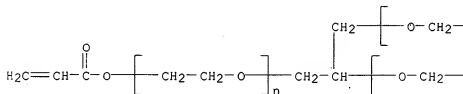
LA German

FAN.CNT 1

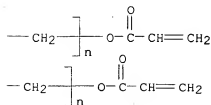
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PI	DE 19540951	A1	19970507	DE 1995-19540951	19951103 <--
	WO 9717397	A1	19970515	WO 1996-EP4644	19961025 <--
	W: CA, HU, JP, PL, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 858478	A1	19980819	EP 1996-934813	19961025 <--

EP 858478 B1 20000119  
 R: DE, ES, FR, GB, IT, SE  
 JP 11514691 T 19991214 JP 1997-517792 19961025 <--  
 JP 3976785 B2 20070919  
 ES 2142623 T3 20000416 ES 1996-934813 19961025 <--  
 US 6136873 A 20001024 US 1998-68023 19980504 <--  
 PRAI DE 1995-19540951 A 19951103 <--  
 WO 1996-EP4644 W 19961025 <--  
 AB Aqueous mixts. containing (a) acid group-containing monoethylenically unsatd. monomers  
 that are  $\geq 50\%$  neutralized, (b) optionally, other monoethylenically unsatd. monomers, (c) crosslinker, (b) polymerization initiator, (e) 0.1-20%  $\geq 1$  surfactant, (f) optionally,  $\geq 1$  solvent, and (g) optionally, thickener, polymerization regulator, filler, and/or cell-forming agent are foamed by mixing with an inert gas, and the foam is polymerized to give hydrogel polymer foams containing 1-45% water. These foams are useful in sanitary articles, bandages, sealants, packaging materials, and soil improvers.  
 IT 190600-42-1P, Acrylic acid-1,4-butanediol diacrylate-polyethylene glycol glycerol ether triacrylate-sodium acrylate copolymer  
 190600-43-2P, Acrylic acid-polyethylene glycol glycerol ether triacrylate-sodium acrylate copolymer  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (water-absorbing crosslinked acid group-containing acrylic polymer foams)  
 RN 190600-42-1 HCAPLUS  
 CN 2-Propenoic acid, polymer with 1,4-butanediyl di-2-propenoate,  $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and sodium 2-propenoate (9CI) (CA INDEX NAME).  
 CM 1  
 CRN 101661-95-4  
 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C12 H14 O6  
 CCI PMS

PAGE 1-A



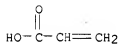
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

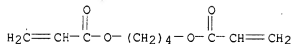


● Na

CM 3

CRN 1070-70-8

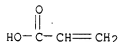
CMF C10 H14 O4



CM 4

CRN 79-10-7

CMF C3 H4 O2



RN 190600-43-2 HCAPLUS

CN 2-Propenoic acid, polymer with  $\alpha, \alpha', \alpha''$ -1,2,3-propanetriyltris[ $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and sodium 2-propenoate (9CI) (CA INDEX NAME)

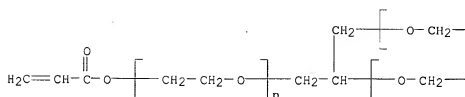
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CRN 101661-95-4

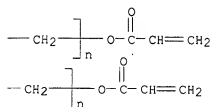
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C12 H14 O6

CCI PMS

PAGE 1-A



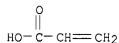
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CM 2

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CMF C3 H4 O2 . Na

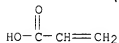


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



L261 ANSWER 25 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1991:520103 HCAPLUS  
 DN 115:120103  
 TI Graft copolymers for diapers and sanitary napkins  
 IN Engelhardt, Friedrich; **Riegel, Ulrich**  
 PA Cassella A.-G., Germany  
 SO Ger. Offen., 9 pp.

CODEN : GWXXBX

DT Patent

LA German

FAN,CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3911433	A1	19901011	DE 1989-3911433	19890407 <--
	EP 400283	A2	19901205	EP 1990-104966	19900316 <--
	EP 400283	A3	19920108		
	EP 400283	B1	19950111		
	R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
	US 5011892	A	19910430	US 1990-498722	19900326 <--
	FI 97475	B	19960913	FI 1990-1492	19900326 <--
	FI 97475	C	19961227		
	CA 2013115	A1	19901007	CA 1990-2013115	19900327 <--
	CA 2013115	C	19991116		
	JP 03020313	A	19910129	JP 1990-90518	19900406 <--
	JP 2986837	B2	19991206		
PRAI	DE 1989-3911433	A	19890407	<--	

AB Hydrophilic swellable graft copolymers comprise 0.5-20% XO(CR1CH2O)nY (X = alkyl, aryl, aralkyl, Y; Y = COMe, SO3H, COCHMe, CO2R2, etc.; R1 = H, Me; R2 = R1, Et; n = 2-300), 79-99% CHR4:CHR2R3 (R3 = CO2H, sulfonyl, phosphonyl, etc.; R4 = R2, CO2H), and 0.1-2% crosslinking agent. The polymers are usable for sanitary napkins, diapers, and similar articles. A copolymer (40 g) made of 312 g propylene oxide-ethylene oxide block copolymer and 20 g succinic anhydride was added to a dispersion of 1910 g acrylic acid in 1493 g NaHCO3-containing 4920 g water, followed by the addition of 20 g trimethylolpropane triacrylate in 20 g polyethylene glycol, 10 g Na diisootosulfosuccinate, 30 g cycloaliph. epoxide (Dipeoxide), 2.2 g 2,2'-azabisamidinopropane-2HCl in 20 g H2O, 4.4 g K2O2.2HSO4 in 170 g water and 6 g Na pyrosulfite in 120 g water. Heating at 85° resulted in a graft copolymer, usable in diapers.

IT 134338-19-5P 134366-92-0P

RL: PREP (Preparation)

(preparation of, as absorbent material, for diapers and sanitary napkins)

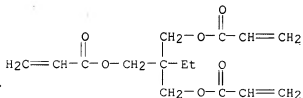
RN 134338-19-5 HCAPLUS

CN 2-Propenoic acid, polymer with 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, methyloxirane and oxirane, graft (9CI)  
(CA INDEX NAME)

CM 1

CRN 15625-89-5

CMF C15 H20 O6

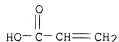


CM 2

CRN 79-10-7

CMF C3 H4 O2





CM 3

CRN 75-56-9  
CMF C3 H6 O



CM 4

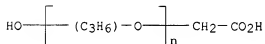
CRN 75-21-8  
CMF C2 H4 O



RN 134366-92-0 HCAPLUS  
CN 2-Propenoic acid, polymer with  $\alpha$ -(carboxymethyl)- $\omega$ -hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl-1,3-propanediyl di-2-propenoate, graft (9CI) (CA INDEX NAME)

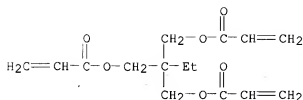
CM 1

CRN 121337-06-2  
CMF (C3 H6 O)<sub>n</sub> C2 H4 O3  
CCI IDS, PMS

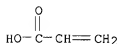


CM 2

CRN 15625-89-5  
CMF C15 H20 O6



CM 3

 CRN 79-10-7  
 CMF C3 H4 O2


L261 ANSWER 26 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:574876 HCAPLUS

DN 111:174876

TI Preparation and use of hydrophilic swellable graft polymers

IN Engelhardt, Friedrich; Riegel, Ullrich

PA Cassella A.-G., Fed. Rep. Ger.

SO Ger. Offen., 7 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3738602	A1	19890524	DE 1987-3738602	19871113 <--
	US 4931497	A	19900605	US 1988-264022	19881028 <--
	FI 8805049	A	19890514	FI 1988-5049	19881102 <--
	FI 96218	B	19960215		
	FI 96218	C	19960527		
	CA 1332251	C	19941004	CA 1988-582704	19881110 <--
	DK 8806310	A	19890514	DK 1988-6310	19881111 <--
	EP 316792	A2	19890524	EP 1988-118802	19881111 <--
	EP 316792	A3	19910227		
	EP 316792	B1	19940119		
	R: BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
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	JP 2895075	B2	19990524		
	ES 2061608	T3	19941216	ES 1988-118802	19881111 <--
PRAI	DE 1987-3738602	A	19871113	<--	

AB The title polymers, having high gel strength in the swollen state and useful in diapers, tampons, sanitary napkins, etc., contain 0.5-20% CH(CO<sub>2</sub>H)CHCO<sub>2</sub>[(C(R<sub>1</sub>)CH<sub>2</sub>O]<sub>n</sub>COCHCH(CO<sub>2</sub>H) (R<sub>1</sub> = H, Me; n = 2-300) groups, 79-99% CH(R<sub>4</sub>)C(R<sub>2</sub>)R<sub>3</sub> [R<sub>2</sub> = H, Me, Et; R<sub>3</sub> = CO<sub>2</sub>H, SO<sub>3</sub>H, or PO<sub>3</sub>H<sub>2</sub> group (or ester) or -CONHCMe<sub>2</sub>CH<sub>2</sub>R<sub>5</sub> (R<sub>5</sub> = SO<sub>3</sub>H, PO<sub>3</sub>H<sub>2</sub>); R<sub>4</sub> = H, Me, Et, CO<sub>2</sub>H] groups, and 0.1-2% crosslinking monomer containing ≥2 double bonds. The graft polymers have high absorption rates and are nontacky in the swollen state. Thus, adding 39.2 g maleic anhydride to 345 g 0.2:1.6 ethylene oxide-propylene oxide copolymer (OH value 65), stirring at room temperature,

and

stirring at 80°, gave a grafting substrate (I). Redox polymerization of an aqueous mixture of 100 g 1, 12 g trimethylolpropane triacrylate, and Na acrylate (from 1888 g acid) gave a graft copolymer showing good fluid retention in a diaper.

IT 123198-97-0P 123223-03-0P

RL: PREP (Preparation)

(absorbents for aqueous systems, manufacture of)

RN 123198-97-0 HCAPLUS

CN 2-Propenoic acid, polymer with (Z,Z)-α-(3-carboxy-1-oxo-2-propenyl)-ω-[(3-carboxy-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, sodium salt, graft (9CI) (CA INDEX NAME)

CM 1

CRN 123198-96-9

CMF (C15 H20 O6 . C3 H4 O2 . (C2 H4 O)n C8 H6 O7)x

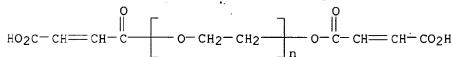
CCI PMS

CM 2

CRN 36247-43-5

CMF (C2 H4 O)n C8 H6 O7

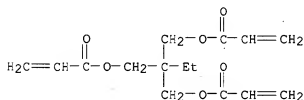
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CM 3

CRN 15625-89-5

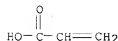
CMF C15 H20 O6



CM 4

CRN 79-10-7

CMF C3 H4 O2



RN 123223-03-0 HCAPLUS  
 CN 2-Propenoic acid, polymer with (Z,Z)- $\alpha$ -(3-carboxy-1-oxo-2-propenyl)-  
 $\omega$ -[(3-carboxy-1-oxo-2-propenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)]  
 and 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl  
 di-2-propenoate, sodium salt, graft (9CI) (CA INDEX NAME)

CM 1

CRN 123223-02-9

CMF (C15 H20 O6) . (C3 H6 O)n C8 H6 O7 . C3 H4 O2)x

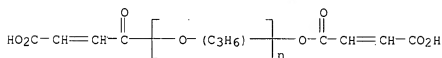
CCI PMS

CM 2

CRN 50986-12-4

CMF (C3 H6 O)n C8 H6 O7

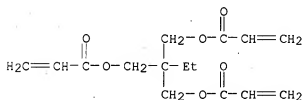
CCI IDS, PMS



CM 3

CRN 15625-89-5

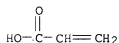
CMF C15 H20 O6



CM 4

CRN 79-10-7

CMF C3 H4 O2



=> => d 1314 bib abs hitstr retable tot

L314 ANSWER 1 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:1057022 HCAPLUS

DN 147:371922

TI Molds made of alicyclic polymers for producing contact lenses  
 IN Yin, Changhong; Ansell, Scott F.  
 PA USA  
 SO U.S. Pat. Appl. Publ., 11pp., Cont.-in-part of U.S. Ser. No. 639,823.  
 CODEN: USXXCO

DT Patent  
 LA English

FAN.CMT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007216860	A1	20070920	US 2006-522230	20060915 <--
	US 2004075039	A1	20040422	US 2003-639823	20030813 <--
PRAI	US 2002-222373	B2	20020816	<--	
	US 2003-395755	B2	20030324	<--	
	US 2003-639823	A2	20030813		

AB This invention describes molds made from alicyclic copolymers that are useful in the production of soft contact lenses and methods for their use. The preferred molds are two part molds, where either the front curve or the back curve of the mold is made of the alicyclic copolymers of the invention and the other curve is made of polypropylene. Thus, pellets of the alicyclic copolymer Zeonor 1060R were dried, heated and purged through an injection molding machine. Approx. 3 lb were purged and molded within 10-15 min to give front curves and back curves for lenses having a power of -1.00 D. The molds were coated with a high mol. weight poly-HEMA coating and used for manufacturing of silicone hydrogel lenses. Molds made from alicyclic copolymer produced coated lenses with significantly reduced coating defects compared to molds made from polypropylene (Atofina EOD 00-11).

IT 12737-61-0, Poly(glycerol methacrylate)  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (molds made of alicyclic copolymers for producing soft contact lenses)  
 RN 12737-61-0 HCAPLUS,  
 CN 2-Propenoic acid, 2-methyl-, ester with 1,2,3-propanetriol, homopolymer  
 (CA INDEX NAME)

CM 1

CRN 54174-14-0

CMF C4 H6 O2 . x C3 H8 O3

CM 2

CRN 79-41-4

CMF C4 H6 O2

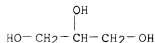
CH2

Me-C-CO2H

CM 3

CRN 56-81-5

CMF C3 H8 O3



L314 ANSWER 2 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:857543 HCAPLUS

DN 141:350828

TI Mixtures of at least two (meth)acrylates having at least two double bonds for manufacture of hydrogels

IN Riegel, Ulrich; Daniel, Thomas; Hermeling, Dieter; Elliott, Mark; Schwalm, Reinhold

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004087635	A2	20041014	WO 2004-EP3348	20040330 <--
	WO 2004087635	A3	20041216		
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	RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	WO 2003104300	A1	20031218	WO 2003-EP305953	20030606 <--
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	WO 2003104301	A1	20031218	WO 2003-EP306028	20030610 <--
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	WO 2003104302	A1	20031218	WO 2003-EP306054	20030610 <--
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PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,  
 TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10358372 A1 20041014 DE 2003-10358372 20031211 <--  
 EP 1613583 A2 20060111 EP 2004-724254 20040330 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
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BR 2004008969 A 20060404 BR 2004-8969 20040330 <--  
 JP 2006522047 T 20060928 JP 2006-504915 20040330 <--  
 US 2006235141 A1 20061019 US 2005-551605 20050930 <--

PRAI DE 2003-10315336 A 20030403 <--  
 DE 2003-10315345 A 20030403 <--  
 DE 2003-10315669 A 20030404  
 DE 2003-10319462 A 20030429  
 WO 2003-EP5953 A 20030606  
 WO 2003-EP6028 A 20030610  
 WO 2003-EP6054 A 20030610  
 DE 2003-10358372 A 20031211  
 DE 2002-10225943 A 20020611 <--  
 WO 2004-EP3348 W 20040330

OS MARPAT 141:350828  
 AB Title mixts. for use as crosslinkers in the manufacture of  
**superabsorbent hydrogels** with high hydrolysis resistance  
 and particle formation during manufacture have GFV 200-600 g/mol double bonds,  
 with  $GFV = \sum i=1 = \alpha i MW_i / Z_i$  [ $\sum i=1 \alpha i = 1$ ,  $\alpha i$  =  
 mol fraction of compound (i) in the mixture, n [number of compds. in mixture]  
 $\geq 2$ ,  $Z_i$  = number of double bonds in compound (i),  $MW_i$  = mol. weight of  
 compound (i)]. A typical **hydrogel** was manufactured by radical polymerization  
 of 220 g acrylic acid, 2201 g 37.3% aqueous Na acrylate solution, and 5.1 g  
 mixture  
 containing 69.3% 30:5 ethylene oxide-propylene oxide copolymer  
 trimethylolpropane ether triacrylate and 30.7% Laromer TPGDA.

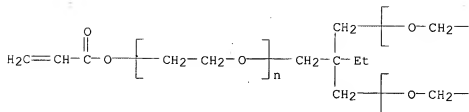
IT 202532-81-8P, Acrylic acid-polyethylene glycol trimethylolpropane  
 ether triacrylate-sodium acrylate copolymer  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (control; mixts. of at least two (meth)acrylates having at least two  
 double bonds for crosslinkers for manufacture of **hydrogels** for  
 nonwoven fabrics)

RN 202532-81-8 HCAPLUS  
 CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -  
 [(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediy) ether with  
 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA  
 INDEX NAME)

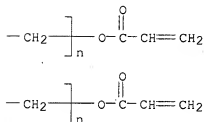
CM 1

CRN 28961-43-5  
 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6  
 CCI PMS

PAGE 1-A



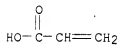
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

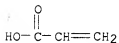


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 3 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:328852 HCAPLUS

DN 140:340384

TI Production and use of super-**absorbent** foams

PA BASF A.-G., Germany



SO Ger. Offen., 27 pp.

CODEN: GWXXBX

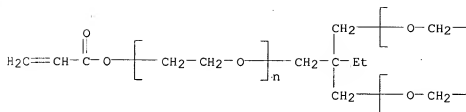
DT Patent

LA German

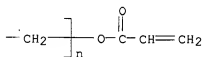
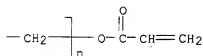
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10247241	A1	20040422	DE 2002-10247241	20021010 <--
	WO 2004035668	A2	20040429	WO 2003-EP11013	20031006 <--
	WO 2004035668	A3	20041014		
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	AU 2003271685	A1	20040504	AU 2003-271685	20031006 <--
	EP 1562650	A2	20050817	EP 2003-753507	20031006 <--
	EP 1562650	B1	20070214		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1711112	A	20051221	CN 2003-80102974	20031006 <--
	JP 2006503134	T	20060126	JP 2004-544080	20031006 <--
	AT 353673	T	20070315	AT 2003-753507	20031006 <--
	US 2006020049	A1	20060126	US 2005-530373	20050406 <--
	ZA 2005003680	A	20060726	ZA 2005-3680	20050509 <--
PRAI	DE 2002-10247241	A	20021010	<--	
	WO 2003-EP11013	W	20031006		
AB	The title films, with good wet-fastness, contain super-absorbent synthetic fibers or natural fibers (e.g., apple, orange, tomato, wheat, or oat fibers). Adding 2.69 mol triethanolamine to a stirred mixture of 4.84 mol acrylic acid, 0.54 mol 37.3% Na acrylate, and ethoxylated trimethylolpropane triacrylate 28, 15% ethoxylated fatty alc. 21.33, and H2O 65.70 g with ice cooling at ≤16°, adding 2.4% (based on monomers) superabsorbent fibers (Fiberdri P 8/00 1231), pressurizing with CO2 (12 bar), adding 26.67 g 3% aqueous 2,2'-azobis(2-amidinopropane):2HCl, spraying the monomer foam on a glass plate with edges 3 mm high, covering with a 2nd glass plate, exposing the plate to UV light for 4 min, and drying at 70° in vacuo gave a foam with a homogeneous, open-cell foam structure, d. 0.20, and no skin formation.				
IT	202532-81-8P				
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (cellular; production and use of super-absorbent foams)				
RN	202532-81-8 HCAPLUS				
CN	2-Propenoic acid, sodium salt (1:1), polymer with α-hydro-ω-[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA INDEX NAME)				
CM	1				
CRN	28961-43-5				
CMF	(C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6				
CCI	PMS				

PAGE 1-A



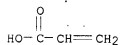
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

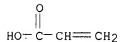


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 4 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:182734 HCAPLUS

DN 140:223366

TI Superabsorbent polymers containing clays for medical articles

jan delaval - 25 october 2007

IN Herfert, Norbert; Mitchell, Michael A.; Azad, Michael M.; Woodrum, Guy T.;  
 Chiang, William G.-J.  
 PA BASF Aktiengesellschaft, Germany  
 SO PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004018006	A1	20040304	WO 2003-EP8092	20030724 <--
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2003250155	A1	20040311	AU 2003-250155	20030724 <--
	BR 2003013520	A	20050628	BR 2003-13520	20030724 <--
	EP 1553989	A1	20050720	EP 2003-792228	20030724 <--
	EP 1553989	B1	20060322		
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	CN 1678356	A	20051005	CN 2003-819968	20030724 <--
	JP 2005536599	T	20051202	JP 2004-530053	20030724 <--
	AT 320823	T	20060415	AT 2003-792228	20030724 <--
	ES 2258741	T3	20060901	ES 2003-3792228	20030724 <--
	US 2005245393	A1	20051103	US 2005-523086	20050202 <--
	ZA 2005002354	A	20060531	ZA 2005-2354	20050322 <--
PRAI	US 2002-405783P	P	20020823	<--	
	WO 2003-EP8092	W	20030724		

OS MARPAT 140:223366

AB Surface-crosslinked **superabsorbent** polymer (SAP) particles, comprising (i) about 0.001% to 5% of a surface crosslinking agent, (ii) about 12% to 35% of a clay in the vicinity of the surfaces of the SAP particles, and (iii) 0% to about 25% of an inorg. network builder are disclosed. The clay is added to SAP particles during surface crosslinking to substantially reduce the generation, and recycling, of SAP fines, and to provide SAP particles having an improved acquisition rate of fluids and an improved permeability of a fluid through the swollen SAP particles. Diaper cores and **absorbent** articles containing the surface crosslinked SAP particles also are disclosed. For example, an SAP containing 80 weight% poly(acrylic acid) (PAA), 20 weight% sodium silicate, and free of

SAP fines was surface crosslinked in the presence of a clay. Mixts. were prepared containing water (21 g), propylene glycol (21 g), kaolin clay slurry [143 g (10%), 246 g (20%), or 429 g (30%)], and ethylene glycol diglycidyl ether [2 g (0.2%) or 3 g (0.3%)], and applied to the SAP to provide SAP particles surface crosslinked with 0.2% or 0.3% ethylene glycol diglycidyl ether and containing 10%, 20%, or 30% kaolin clay in the vicinity of the SAP particle surfaces. The resulting surface-crosslinked SAP particles exhibited about a 10% performance improvement over identical surface-crosslinked SAP particles lacking a clay for typically measured properties, such as **absorption** under load (AUL) and centrifuge retention capacity (CRC). The surface-crosslinked particles of the present invention also exhibited a substantial increase in the saline flow

conductivity (SFC), i.e., from about  $20 \times 10^7$  cm<sup>3</sup>.sec/g to about  $100 \times 10^7$  cm<sup>3</sup>.sec/g. Such a result is surprising for SAP particles containing 20% sodium silicate and 20% kaolin clay, for a total of 40% diluent in the SAP. The surface-treated SAP particles obtained are more economical to prepare because they contain a high percentage of diluent, while surprisingly providing improved SAP particle performance.

IT 154457-96-2P, Acrylic acid-ethoxylated trimethylolpropane triacrylate copolymer

RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(manufacture of surface-crosslinked **superabsorbent** polymer particles containing clay for **medical** articles)

RN 154457-96-2 HCAPLUS

CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\alpha$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

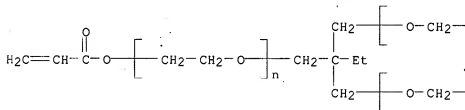
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CRN 28961-43-5

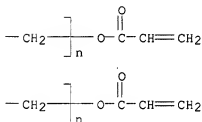
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CCI PMS

PAGE 1-A



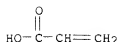
PAGE 1-B



CM 2

CRN 79-10-7

CMF C3 H4 O2



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Ag	2001			WO 0168156 A	IHCAPLUS
Camelot Superabsorbents	1996			WO 9630442 A	IHCAPLUS
Hatsuda, T	1992			US 5140076 A	IHCAPLUS
Messner, B	2000			US 6124391 A	IHCAPLUS
Stockhausen Chem Fab Gm	2001			WO 0113965 A	IHCAPLUS

L314 ANSWER 5 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:182733 HCAPLUS

DN 140:223365

TI Superabsorbent polymers and method of manufacturing the same

IN Herfert, Norbert; Azad, Michael M.; Mitchell, Michael A.; Woodrum, Guy T.;

Chiang, William G.-J.; Brown, Patricia D.; Robinson, James C.

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004018005	A1	20040304	WO 2003-EP8087	20030724 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003250154	A1	20040311	AU 2003-250154	20030724 <--
BR 2003013517	A	20050614	BR 2003-13517	20030724 <--
EP 1551467	A1	20050713	EP 2003-792227	20030724 <--
EP 1551467	B1	20060308		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1678357	A	20051005	CN 2003-819999	20030724 <--
JP 2005536598	T	20051202	JP 2004-530052	20030724 <--
AT 319485	T	20060315	AT 2003-792227	20030724 <--
ES 2256794	T3	20060716	ES 2003-3792227	20030724 <--
US 2005239942	A1	20051027	US 2005-522937	20050131 <--
ZA 2005002353	A	20060531	ZA 2005-2353	20050322 <--
PRAI US 2002-405477P	P	20020823	<--	
WO 2003-EP8087	W	20030724		

OS MARPAT 140:223365

AB Superabsorbent polymer (SAP) particles containing a clay are disclosed. The clay is added to an SAP hydrogel prior to SAP neutralization to provide particles having improved fluid acquisition rates and an improved permeability of a fluid through the swollen SAP-clay

particles. Diaper cores and **absorbent** articles containing the SAP-clay particles also are disclosed. For example, a copolymer was prepared by reacting 1040 g of acrylic acid with 5.72 g of pentaerythritol triallyl ether, giving a solid gel that subsequently was subjected to mech. comminution. The comminuted gel (1000 g) was admixed with 8 g of a synthetic trioctahedral sheet silicate bearing the mineralogical designation saponite (SKS-20) suspended in 210.8 g of water. Next, a sufficient amount of 50% aqueous sodium hydroxide solution to provide a 73 mol% neutralized poly(acrylic acid) was added. The resulting neutralized **hydrogel**-clay particles were dried, then ground and sieved. Twenty grams of the SAP-clay particles were sprayed with a homogeneous solution containing 0.5 g 1,2-propanediol, 0.5 g water, 0.02 g ethylene glycol diglycidyl ether (EGDGE), and 0.015 of aluminum sulfate, and heated at 140° to surface crosslink the SAP-clay particles.

IT 154457-96-2P, Acrylic acid-ethoxylated trimethylolpropane triacrylate copolymer

RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(manufacture of surface-crosslinked **superabsorbent** polymer particles containing clays for **medical** articles)

RN 154457-96-2 HCAPLUS

CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

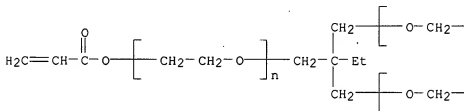
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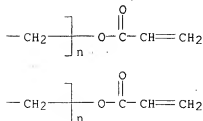
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CCI PMS

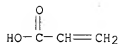
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PAGE 1-B



CM 2

 CRN 79-10-7  
 CMF C3 H4 O2


## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Alberta Res Council Inc	2000			IWO 0073596 A	IHCAPLUS
Amcol International Cor	1998			IWO 9852979 A	IHCAPLUS
Dupre, J	1982			IUS 4351754 A	IHCAPLUS
Paragon Trade Brands In	2001			IWO 0132117 A	IHCAPLUS
Polak, B	1985			IUS 4535098 A	IHCAPLUS
Procter & Gamble	1991			IWO 9112031 A	IHCAPLUS
Woodrum, G	1990			IUS 4914066 A	IHCAPLUS

L314 ANSWER 6 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:60351 HCAPLUS

DN 140:112227

TI Water-absorbing, foam-type polymer structures

IN Hintz, Sandra; Brueggemann, Helmut

PA Stockhausen GmbH &amp; Co. KG, Germany

SO FCT Int. Appl., 51 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004006971	A2	20040122	WO 2003-EP7425	20030709 <--
WO 2004006971	A3	20041028		
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DE 10231356	A1	20040205	DE 2002-10231356	20020711 <--
DE 10231356	B4	20070215		
AU 2003250925	A1	20040202	AU 2003-250925	20030709 <--
BR 2003012355	A	20050405	BR 2003-12355	20030709 <--
EP 1521601	A2	20050413	EP 2003-763772	20030709 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1668343	A	20050914	CN 2003-816527	20030709 <--
JP 2006507374	T	20060302	JP 2004-520553	20030709 <--
US 2005176834	A1	20050811	US 2005-520697	20050405 <--
PRAI DE 2002-10231356	A	20020711	<--	
WO 2003-EP7425	W	20030709		

AB According to the invention, an aqueous composition (A) is foamed, said composition

containing: (A1) water; (A2) at least one polymer which is based on at least (α1) between 55 and 100 weight% of a polymerized, monoethylenically unsatd. monomer containing acid groups, or the salt thereof, and (α2) between 0 and 45 weight% of a polymerized, monoethylenically unsatd. monomer which can be copolymd. with (α1), the sum of the weight quantities (α1) and (α2) amounting to 100 weight% and at least 31.5 weight% of the monomers, in relation to the total weight of the monomers (α1) and (α2), being acrylic acid or salts of the acrylic acid; (A3) at least one crosslinking agent; (A4) at least one blowing agent; (A5) at least one surfactant; and (A6) optionally other auxiliary agents. The foamed, aqueous composition is then heated at a temperature between 50 and 300°C, in such a way that the polymers (A2) are at least partially crosslinked and the water content (A1) is regulated to a maximum of 15 weight%, in relation to the total weight of the existing, foamed polymer structure. These foams exhibit high softness and flexibility. Composites are manufactured by coating the compns. on substrates, foaming, and crosslinking.

IT 80847-45-6P, Acrylic acid-sodium acrylate-trimethylolpropane copolymer 646512-29-0P, Acrylic acid-pentaerythritol-sodium acrylate copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(soft water-absorbing crosslinked acrylic polymer foams)

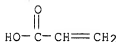
RN 80847-45-6 HCAPLUS

CN 2-Propenoic acid, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and sodium 2-propenoate (1:1) (CA INDEX NAME)

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CRN 7446-81-3

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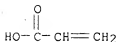


● Na

CM 2

CRN 79-10-7

CMF C3 H4 O2

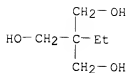


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CRN 77-99-6

CMF C6 H14 O3





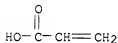
RN 646512-29-0 HCAPLUS

CN 2-Propenoic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol and sodium 2-propenoate (9CI) (CA INDEX NAME)

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CRN 7446-81-3

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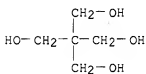


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CRN 115-77-5

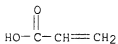
CMF C5 H12 O4



CM 3

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 7 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

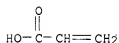
AN 2004:31041 HCAPLUS

DN 141:244309

TI Design and preparation of the complex **superabsorbent** resin

AU Deng, Xinhua; Sun, Yuan; Wang, Shengli; Chen, Lin

CS School of Material Science and Chemical Engineering, Tianjin Polytechnic University, Tianjin, 300160, Peop. Rep. China  
 SO Jingxi Shiyou Huagong (2003), (3), 33-36  
 CODEN: JSHIBF; ISSN: 1003-9384  
 PB Jingxi Shiyou Huagong Bianjibu  
 DT Journal  
 LA Chinese  
 AB A complex IPN **superabsorbent** resin was prepared by heating acrylic acid (partially neutralized with aqueous NaOH solution), starch, and polyvinyl alc. in the presence of K2S2O8. The optimal preparation conditions and **absorbency** of the resin were investigated.  
 IT 749253-20-1, Acrylic acid-sodium acrylate-vinyl alcohol graft copolymer  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (preparation of complex IPN **superabsorbent** resins)  
 RN 749253-20-1 HCAPLUS  
 CN 2-Propenoic acid, polymer with ethenol and sodium 2-propenoate, graft (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 7446-81-3  
 CMF C3 H4 O2 . Na

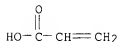


● Na

CM 2  
 CRN 557-75-5  
 CMF C2 H4 O



CM 3  
 CRN 79-10-7  
 CMF C3 H4 O2



L314 ANSWER 8 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2004:20724 HCAPLUS

DN 140:94874  
 TI Production of iron ion-containing water-**absorbent** polymers with  
 low residual monomer content  
 IN Burgert, Josef H.  
 PA Dow Global Technologies, Inc., USA  
 SO PCT Int. Appl., 43 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004003036	A1	20040108	WO 2003-US15940	20030519 <--
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EP	1519966	A1	20050406	EP 2003-738940	20030519 <--
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	CN 1662567	A	20050831	CN 2003-815033	20030519 <--
	JP 2005530906	T	20051013	JP 2004-517566	20030519 <--
	US 2005154146	A1	20050714	US 2004-517572	20041209 <--
PRAI	US 2002-392706P	P	20020626	<--	
	WO 2003-US15940	W	20030519		

AB A process for production of a water-**absorbent** polymer comprises the steps of (I) polymerizing a mixture of (a) one or more ethylenically unsatd. carboxyl-containing monomers, (b) one or more crosslinking agents, (c) optionally, one or more comonomers copolymerizable with the carboxyl-containing monomer, (d) a polymerization medium, and (e) a chlorine-  
 or bromine-containing oxidation agent to form a crosslinked **hydrogel**, (II) comminuting the **hydrogel** to particles, and (III) drying the **hydrogel** at temperature > 105°, Fe<sup>2+</sup> ions or Fe<sup>3+</sup> ions or their mixts. being added to the **hydrogel** prior to, during or after the comminution step but prior to the substantial drying of the **hydrogel**. The method provides crosslinked water-**absorbent** polymers with low residual monomer content. Thus, a dried **hydrogel** of acrylic acid-ethoxylated trimethylolpropane triacrylate-sodium acrylate copolymer produced by aqueous redox polymerization  
 in the

presence of FeSO<sub>4</sub>·7H<sub>2</sub>O (iron ion content of 10 ppm) contained 381 ppm of the residual monomers compared to 714 ppm for a **hydrogel** produced in the absence of iron ions.  
 IT 202532-81-8P, Acrylic acid-ethoxylated trimethylolpropane triacrylate-sodium acrylate copolymer 642453-30-3P, Acrylic acid-ethoxylated trimethylolpropane triacrylate-polyethylene glycol-sodium acrylate copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (production of iron ion-containing water-**absorbent** polymers with low residual monomer content)

RN 202532-81-8 HCAPLUS  
 CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -  
 [(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with  
 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA  
 INDEX NAME)

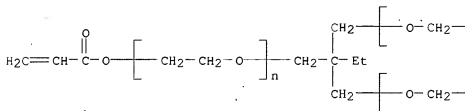
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CRN 28961-43-5

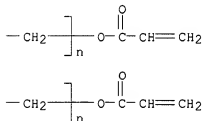
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CCI PMS

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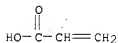
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CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

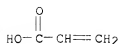


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



RN 642453-30-3 HCAPLUS

 CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), and sodium 2-propenoate (9CI) (CA INDEX NAME)

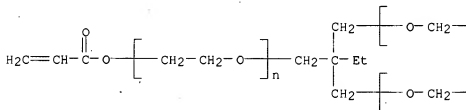
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CRN 28961-43-5

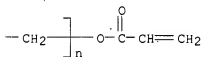
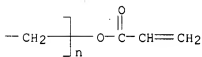
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CCI PMS

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PAGE 1-B

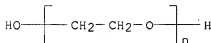


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CRN 25322-68-3

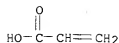
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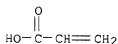
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CRN 79-10-7  
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Burgert, J	1997			US 5629377 A	HCAPLUS
Sanyo Chemical Ind Ltd	1992			DE 4127814 A	HCAPLUS

L314 ANSWER 9 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:991565 HCAPLUS

DN 140:43143

TI Acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels

IN Popp, Andreas; Daniel, Thomas; Schroeder, Juergen; Jaworek, Thomas; Funk, Ruediger; Schwalm, Reinhold; Weismantel, Matthias; Riegel, Ulrich

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DT Patent

LA German

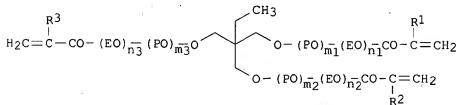
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jan delaval - 25 october 2007

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WO 2004-EP3348	W	20040330		

GI



I

AB Acrylic and/or methacrylic esters of alkoxyolated trimethylolpropane have the general formula (I), where EO is -OCH<sub>2</sub>CH<sub>2</sub>-, PO independently represents -OCH<sub>2</sub>CH(CH<sub>3</sub>)- or -OCH(CH<sub>3</sub>)CH<sub>2</sub>-; n<sub>1</sub>, n<sub>2</sub>, n<sub>3</sub> are independently 4, 5 or 6; the total of n<sub>1</sub>, n<sub>2</sub> and n<sub>3</sub> equals to 14, 15 or 16; m<sub>1</sub>, m<sub>2</sub>, m<sub>3</sub> are independently 1, 2 or 3; the total of m<sub>1</sub>, m<sub>2</sub> and m<sub>3</sub> equals to 4, 5 or 6;

and R1, R2 and R3 are independently H or CH3. The esters can be used as crosslinking agents in production of **hydrogels**, or as components in cement additive compns. or in production of polymer dispersions and lacquers. Thus, an alkoxyated trimethylolpropane was produced by reacting trimethylolpropane (77) in water in the presence of KOH (0.5) with propylene oxide (167) at 120-130°, followed by adding and reacting with ethylene oxide (379 g) at 145-155°. The alkoxyated trimethylolpropane (887) was mixed with acrylic acid (216) and esterified in the presence of H2SO4 (5 parts) and polymerization inhibitors. The obtained alkoxyated trimethylolpropane triacrylate was used as a crosslinking agent in radical polymerization with acrylic acid and sodium acrylate.

IT 202532-81-8P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic esters of alkoxyated trimethylolpropane useful in production of **hydrogels**)

RN 202532-81-8 HCAPLUS

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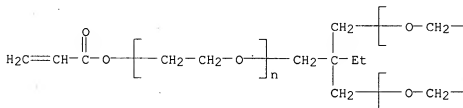
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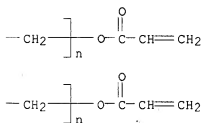
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CCI PMS

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PAGE 1-B

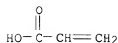


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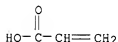
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• Na

CM 3

 CRN .79-10-7  
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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Corp	2001			WO 0156625 A	IHCAPLUS
Christensen, S	2001			WO 0145758 A	IHCAPLUS
Gartner, H	1996			IUS 5506324 A	IHCAPLUS
Kushi, K	1994			IUS 5356754 A	IHCAPLUS

L314 ANSWER 10 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:991563 HCAPLUS

DN 140:28395

 TI Acrylic esters of alkoxyated trimethylolpropane useful in production of  
 hydrogels

 IN Popp, Andreas; Daniel, Thomas; Schroeder, Juergen; Jaworek, Thomas; Funk,  
 Ruediger; Schwalm, Reinhold; Weismantel, Matthias; Riegel, Ulrich

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DT Patent

LA German

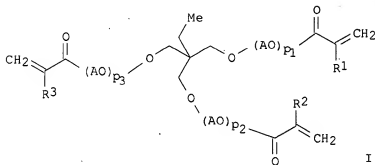
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GI



I

AB Acrylic and/or methacrylic esters of alkoxyated trimethylolpropane have the general formula (I), where each AO independently represents EO, PO or BO, EO being -OCH<sub>2</sub>CH<sub>2</sub>-, PO being -OCH<sub>2</sub>CH(CH<sub>3</sub>)- or -OCH(CH<sub>3</sub>)CH<sub>2</sub>-, BO being -OCH<sub>2</sub>CH(CH<sub>2</sub>CH<sub>3</sub>)- or -OCH(CH<sub>2</sub>CH<sub>3</sub>)CH<sub>2</sub>-; the total of p<sub>1</sub>, p<sub>2</sub> and p<sub>3</sub> equals to an integer from 28 to 75; and R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are independently H or CH<sub>3</sub>. The esters can be used as crosslinking agents in production of hydrogels, or as components in cement additive compns. or in production of polymer dispersions and lacquers. Thus, an alkoxyated trimethylolpropane was produced by reacting trimethylolpropane (77) in water in the presence of KOH (0.5) with ethylene oxide (759) at 145-155°, followed by adding and reacting with propylene oxide (167 g) at 120-130°. The alkoxyated trimethylolpropane (1,427) was mixed with acrylic acid (216) and esterified in the presence of H<sub>2</sub>SO<sub>4</sub> (5 parts) and polymerization inhibitors. The obtained alkoxyated trimethylolpropane triacrylate was used as a crosslinking agent in radical polymerization with acrylic acid and sodium acrylate.

IT 202532-81-8P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic esters of alkoxyated trimethylolpropane useful in production of hydrogels)

RN 202532-81-8 HCAPLUS

CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -  
[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with  
2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA  
INDEX NAME)

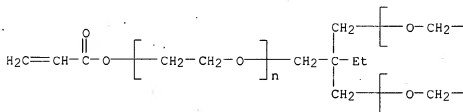
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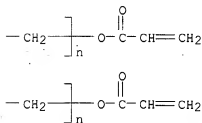
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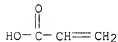
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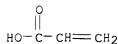
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CM 3

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Abraham, B	1968			US 3380831 A	
Basf Ag	1988			EP 0264841 A	HCAPLUS
Dai Ichi Kogyo Seiyaku	1999			EP 0923147 A	HCAPLUS
Gartner, H	1996			US 5506324 A	HCAPLUS
Hartmann, H	1997			US 5661220 A	HCAPLUS
Kushi, K	1994			US 5356754 A	HCAPLUS
Matsushita Electric Ind	1997			EP 0777287 A	HCAPLUS
Ritter, W	1997			US 5648518 A	HCAPLUS

L314 ANSWER 11 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:991562 HCAPLUS

DN 140:43131

 TI Production of crosslinked hydrogels using esters of polyalcohols  
 and unsaturated carboxylic acids

 IN Jaworek, Thomas; Daniel, Thomas; Wolf, Lothar; Koeniger, Rainer; Schwalm,  
 Reinhold; Hartmann, Gabriele; Wickel, Stefan

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 7

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003104299	A1	20031218	WO 2003-EP5940	20030606 <--
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AU 2003242636	A1	20031222	AU 2003-242636	20030606 <--
BR 2003011500	A	20050308	BR 2003-11500	20030606 <--
EP 1516010	A1	20050323	EP 2003-757035	20030606 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1659212	A	20050824	CN 2003-813666	20030606 <--
JP 2005533875	T	20051110	JP 2004-511365	20030606 <--
US 2005176910	A1	20050811	US 2004-514569	20041201 <--
US 7250481	B2	20070731		

MX 2004PA12091	A	20050419	MX 2004-PA12091	20041203 <--
ZA 2005000188	A	20060726	ZA 2005-188	20050110 <--
PRAI DE 2002-10225943	A	20020611	<--	
WO 2003-EP5940	W	20030606		

OS MARPAT 140:43131

AB A crosslinked **hydrogel** is produced by a process comprising the steps of (a) reacting a polyalc. A with at least one ethylenically unsatd. carboxylic acid B in the presence of an esterification catalyst C, at least one polymerization inhibitor D and, optionally, a solvent E forming an azeotrope with water under conditions of synthesis of an ester F, (b) optionally, removing at least a part of water from the reaction mixture during and/or after the step (a), (c) optionally, neutralizing the reaction mixture, (d) removing the optional azeotrope-forming solvent by distillation, (e) stripping the reaction mixture with an inert gas, (f)

polymerizing

the reaction mixture with optional monoethylenically unsatd. compds. N and at least one other hydrophilic monomer M in the presence of a radical initiator K and, optionally, a graftable substrate L, (g) optionally, crosslinking the polymerized mixture, (h) drying the polymer, and (i) optionally, grinding and/or sieving the polymer. Thus, ethoxylated trimethylolpropane (Polyol TP 70) (681) was mixed with acrylic acid (414) and esterified in methylcyclohexane (365) in the presence of H<sub>2</sub>SO<sub>4</sub> (5 parts) and polymerization inhibitors with distilling off 102 parts of water

formed

during the reaction. The ethoxylated trimethylolpropane triacrylate was used as a crosslinking agent in polymerization with acrylic acid and sodium acrylate.

IT **28961-43-5P**, Ethoxylated trimethylolpropane, triacrylate

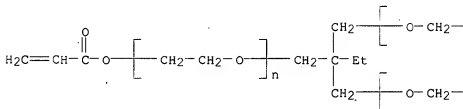
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(esters of polyalcs. and unsatd. carboxylic acids used in production of crosslinked **hydrogels**)

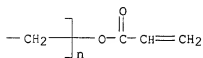
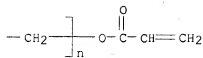
RN 28961-43-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-α-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 202532-81-8P, Acrylic acid-ethoxylated trimethylolpropane triacrylate-sodium acrylate copolymer  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (production of crosslinked **hydrogels** using esters of polyalcs. and unsatd. carboxylic acids)  
 RN 202532-81-8 HCAPLUS  
 CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA INDEX NAME)

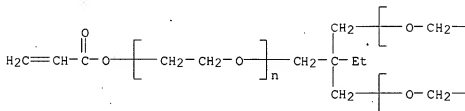
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CRN 28961-43-5

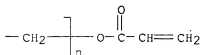
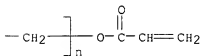
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6

CCI PMS

PAGE 1-A

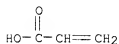


PAGE 1-B



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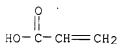
CRN 7446-81-3  
CMF C3 H4 O2 . Na



● Na

CM 3

CRN 79-10-7  
CMF C3 H4 O2



# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Ag	1998			IEP 0874014 A	HCAPLUS
Basf Corp	2001			IWO 0156625 A	HCAPLUS
Beck, E	1998			IUS 5821383 A	HCAPLUS
Dow Chemical Co	1993			IWO 9321237 A	HCAPLUS
Dow Chemical Co	2001			IWO 0141818 A	HCAPLUS
Hoechst Celanese Corp	1989			IEP 0331845 A	HCAPLUS
Ritter, W	1994			IUS 5350877 A	HCAPLUS
Speitkamp, L	1993			IUS 5198574 A	HCAPLUS
Stockhausen Chem Fab Gm	1998			IWO 9847951 A	HCAPLUS

L314 ANSWER 12 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:653195 HCAPLUS

DN 139:198233

TI Water-absorbent, foam hydrogels with improved  
wet-strength, procedures for their production and its use

IN Champ, Samantha

PA BASF AG, Germany

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10205443	A1	20030821	DE 2002-10205443	20020208 <--
PRAI	DE 2002-10205443		20020208	<--	
AB	Water-absorbent, foam hydrogels are available by (I) foaming of a polymerizable of aqueous mixture containing (A) acid-containing monoethylenically unsatd. monomers, which are neutralized to at least 50 mol%, (B) optionally, other monoethylenically unsatd. monomers, (C) acrylic acid- and/or methacrylic acid-esterified addition products from 6 to				



24 mol ethylene oxide and 1 mol trimethylolpropane as crosslinking agent, (D) initiators, (E) at least a surfactant, (F) optionally, at least one release agent, and (G) optionally, thickeners, foam stabilizers, polymerization controllers, fibers, fillers and/or cell nucleating agents, whereby the foaming is done with radical-inert a gas under a pressure from 2 to 200 bar dissolved in the polymerizable aqueous mixture and subsequently on releasing to atmospheric pressure and (II) polymerizing the foamed mixture while adjusting the water content to 1-60%.

IT 202532-81-8P, Acrylic acid;ethoxylated trimethylolpropane triacrylate;sodium acrylate copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)

(water-absorbent acrylic foam **hydrogels** with improved wet-strength)

RN 202532-81-8 HCAPLUS

CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA INDEX NAME)

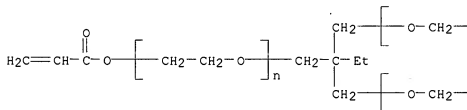
CM 1

CRN 28961-43-5

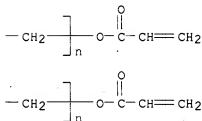
CMF {C2 H4 O}n {C2 H4 O}n {C2 H4 O}n C15 H20 O6

CCI PMS

PAGE 1-A



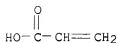
PAGE 1-B



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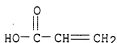
CMF C3 H4 O2 . Na



● Na

CM 3

CRN 79-10-7  
CMF C3 H4 O2



L314 ANSWER 13 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:633388 HCAPLUS

DN 139:181105

TI **Absorptive** material, method for producing the same, and **absorptive** article using the same

IN Nagasuna, Kinya; Imura, Motohiro; Kadonaga, Kenji; Inoue, Hiroki; Sasabe, Masazumi; Minami, Kenji

PA Nippon Shokubai Co., Ltd., Japan

SO PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DT **Patent**

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003065958	A1	20030814	WO 2003-JP584	20030123 <--
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	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR				
	CN 1498097	A	20040519	CN 2003-800119	20030123 <--
	EP 1473010	A1	20041103	EP 2003-703028	20030123 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, HU				
	US 2003181115	A1	20030925	US 2003-352061	20030128 <--
	JP 2003290290	A	20031014	JP 2003-19348	20030128 <--
PRAI	JP 2002-26383	A	20020204	<--	
	WO 2003-JP584	W	20030123	<--	

AB The present invention relates to (i) an **absorptive** material having a substrate and, fixed thereto by a hot-melt adhesive, a water-**absorbing** resin layer containing a water-**absorbing** resin as an essential component, characterized in that it is a laminate comprising the three layers of a layer of the substrate, the water-**absorbing** resin layer and a layer of the hot-melt adhesive, and it exhibits an average clearance percentage in the range of 30-70% and an average clearance radius of 100-300 μm when it is swelled to saturation under no load, (ii) a method for producing the **absorptive** material, and (iii) an **absorptive** article using the same. The **absorptive** material has a fixed **absorbing** resin as described above and also

is reduced in the restriction on swelling caused by the fixation, and thus, it has excellent **absorption** characteristics and can be suitably used for an **absorptive** article which is thin and increased with respect to the amount of a water-**absorbing** resin used therein. Thus, 5500 parts 38% aqueous sodium acrylate (neutralization degree 71 mol%) and 8.1 parts polyethylene glycol diacrylate were polymerized and surface crosslinked with butanediol and propylene glycol to give a water **absorbing** polymer, which was dispersed onto a styrene-butadiene-styrene type copolymer hot melt adhesive (Hibon 9612)-coated paper, the hot-melt adhesive was dispersed on the **absorbing** polymer to give an **absorbing** material, which was integrated with a releasable material and polyester nonwoven fabric to give a model **absorbing** article.

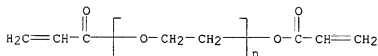
IT 170368-24-8P, Acrylic acid-ethylene glycol diglycidyl ether-glycerin-polyethylene glycol diacrylate-sodium acrylate copolymer  
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
 (preparation of **absorptive** materials having fixed **absorbing** resins within substrates)

RN 170368-24-8 HCAPLUS

CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[oxirane],  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), 1,2,3-propanetriol and sodium 2-propenoate (9CI) (CA INDEX NAME)

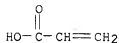
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 CCI PMS



CM 2

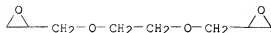
CRN 7446-81-3  
 CMF C3 H4 O2 . Na



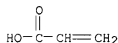
● Na

CM 3

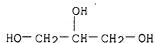
CRN 2224-15-9  
 CMF C8 H14 O4



CM 4

 CRN 79-10-7  
 CMF C3 H4 O2


CM 5

 CRN 56-81-5  
 CMF C3 H8 O3


## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Toyo Eizai Corp	12000			JP 2000238161 A	IHCAPLUS

L314 ANSWER 14 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:511186 HCAPLUS

DN 139:86301

TI Absorbent articles containing superabsorbent polymer particles for hygiene products

IN Whitmore, Darryl L.; Engelhardt, Friedrich

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DT Patent

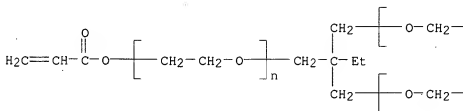
LA English

FAN.CNT 1

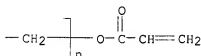
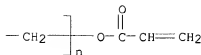
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003053487	A1	20030703	WO 2002-EP11516	20021015 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,			

FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 AU 2002349359 Al 20030709 AU 2002-349359 20021015 <--  
 US 2003135172 Al 20030717 US 2002-300082 20021120 <--  
 PRAI US 2001-341254P P 20011220 <--  
 WQ 2002-EF11516 W 20021015 <--  
 AB The invention relates to the use of a layer obtainable by a process  
 comprising (A) forming a sprayable blend comprising one or more  
**superabsorbent** forming monomers **superabsorbent** polymer  
 particles water, and one or more initiators, (B) applying the sprayable  
 blend on a fibrous web; and (C) subjecting the fibrous web to conditions  
 under which the **superabsorbent** forming monomer with polymerize,  
 as a storage layer for aqueous fluids. Thus an **absorbent** core  
 structure, useful for manufacturing of adult incontinence garments and baby  
 diapers, was prepared from an acquisition pad and a storage pad. The  
 acquisition pad was prepared by coating a polyester nonwoven with a composition  
 containing sodium acrylate-Sartomer SR 9035 copolymer, crosslinked  
**superabsorbent** polyacrylic acid particles, Irgacure 2959, ammonium  
 persulfate, and 2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride.  
 The storage pad was prepared by coating a polyester nonwoven with a composition  
 containing sodium acrylate-Sartomer SR 344 copolymer, crosslinked  
**superabsorbent** polyacrylic acid particles, Darocur 1173, ammonium  
 persulfate, and 2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride.  
 IT 482593-21-5, Sodium acrylate-Sartomer SR 9035 copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (acquisition layer-containing; production of **absorbent** articles  
 containing **superabsorbent** polymer particles for personal care  
 products)  
 RN 482593-21-5 HCAPLUS  
 CN 2-Propenoic acid, sodium salt, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-  
 2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-  
 (hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 28961-43-5  
 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6  
 CCI PMS

PAGE 1-A



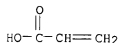
PAGE 1-B



CM : 2

CRN 7446-81-3

CMF C3 H4 O2 . Na



• Na

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Ag	2002			IWO 02094328 A	HCAPLUS
Basf Ag	2002			IWO 02094329 A	HCAPLUS
Basf Corp	2001			IWO 0156625 A	HCAPLUS
Mitsubishi Petrochemical	1988			IEP 0290814 A	HCAPLUS
Moore, D	1993			IUS 5217445 A	
Procter & Gamble	1992			IWO 9211830 A	
Trinh, T	1998			IWO 9826808 A	HCAPLUS

L314 ANSWER 15 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:221729 HCAPLUS

DN 138:238865

 TI Continuous polymerization process for manufacture of  
superabsorbent polymers

IN Gartner, Herbert A.; Nuyken, Katrin; O'Connor, Deno F.

PA Dow Global Technologies Inc., USA

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

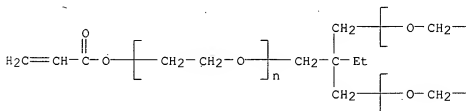
LA English

FAN.CNT 1

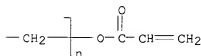
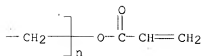
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003022896	Al	20030320	WO 2002-US27361	20020826 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT,				

RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG,  
 US, UZ, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
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 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK  
 BR 2002012696 A 20041019 BR 2002-12696 20020826 <--  
 CN 1555386 A 20041215 CN 2002-817950 20020826 <--  
 JP 2005502745 T 20050127 JP 2003-526967 20020826 <--  
 TW 272284 B 20070201 TW 2002-91120782 20020911 <--  
 US 2005051925 A1 20050310 US 2004-486777 20040927 <--  
 US 6987151 B2 20060117  
 PRAI US 2001-318816P P 20010912 <--  
 WO 2002-US27361 W 20020826 <--  
 AB Process for producing water-insol., water-swellaable polymers comprises  
 subjecting monomers and initiator to polymerization conditions in a reactor  
 system having  $\geq 3$  zones, wherein the first zone is an initiation  
 zone; the second zone is a gel-phase zone; and the third zone is a  
 granulation zone. The monomers comprise 25-50% partially neutralized  
 acrylic acid having a neutralization degree of 50-80 mol%.  
 IT 202532-81-8P, Acrylic acid-ethoxylated trimethylolpropane  
 triacrylate-sodium acrylate copolymer  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (continuous polymerization process for manufacture of **superabsorbent**  
 polymers)  
 RN 202532-81-8 HCAPLUS  
 CN 2-Propenoic acid, sodium salt (1:1), polymer with  $\alpha$ -hydro- $\omega$ -  
 [(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) ether with  
 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (CA  
 INDEX NAME)  
 CM 1  
 CRN 28961-43-5  
 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n Cl5 H20 O6  
 CCI PMS

PAGE 1-A



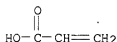
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CM 2

CRN 7446-81-3

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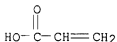


● Na

CM 3

CRN 79-10-7

CMF C3 H4 O2



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Bayer Ag	1997			EP 0783005 A	HCAPLUS
Ito, K	1995			US 5439993 A	HCAPLUS
Tsubakimoto, T	1986			US 4625001 A	HCAPLUS

L314 ANSWER 16 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:42321 HCAPLUS

DN 138:74438

 TI Water **absorbing** resin powders useful as **medical**  
materials and production method thereof

 IN Kajikawa, Katsuhiro; Nishioka, Toru; Fujimaru, Hirotama; Ishizaki,  
Kunihiko

PA Nippon Shokubai Co., Ltd., Japan

SO PCT Int. Appl., 44 pp.

CODEN: PIXXD2

 DT **Patent**



LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003004550	A1	20030116	WO 2002-JP6793	20020704 <--
	W: CN				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	US 2003087983	A1	20030508	US 2002-187959	20020703 <--
	US 6716894	B2	20040406		
	EP 1422257	A1	20040526	EP 2002-745828	20020704 <--
	EP 1422257	B1	20060405		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
	JP 2003137922	A	20030514	JP 2002-197855	20020705 <--
	JP 3993797	B2	20071017		
PRAI	JP 2001-206548	A	20010706	<--	
	WO 2002-JP6793	W	20020704	<--	

AB The present invention relates to a process for producing a water **absorbing** resin powder of a cross-linked structure which has a mass average particle diameter of 300 to 600  $\mu\text{m}$  and contains fine particles having a particle diameter of 150  $\mu\text{m}$  or less in an amount of less than 10%, which involves the steps of polymerizing an unsatd. monomer and of drying the resulting water-containing cross-linked polymer in a gel form, characterized in that it further comprises a step of irradiation of magnetic line of force wherein the water **absorbing** resin powder is allowed to pass through a magnetic field having a magnetic flux d. of 0.05 Wb/m<sup>2</sup> or more after the drying step. A water **absorbing** resin powder produced by the above process is free of a fine metallic foreign substance, and thus is suppressed in its deterioration. Thus, a water **absorbing** resin powder was prepared from acrylic acid partial sodium salt containing trimethylolpropane and surface-crosslinker of glycerol.

IT **80847-45-6P**, Acrylic acid-sodium acrylate-trimethylolpropane copolymer  
 RL: IMF (Industrial manufacture); PUR (Purification or recovery); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (surface-crosslinked; preparation of water **absorbing** resin powders)

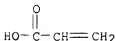
RN 80847-45-6 HCAPLUS

CN 2-Propenoic acid, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and sodium 2-propenoate (1:1) (CA INDEX NAME)

CM 1

CRN 7446-81-3

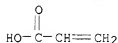
CMF C3 H4 O2 . Na



● Na

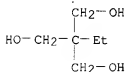
CM 2

CRN 79-10-7  
CMF C3 H4 O2



CM 3

CRN 77-99-6  
CMF C6 H14 O3



# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Ikegai Iron Works Ltd	1986			JP 61-5914 A	
Japan Society For The P	2001			JP 2001253962 A	HCAPLUS
Sanyo Chemical Industri	1998			JP 10-204184 A	HCAPLUS
Sanyo Chemical Industri	1998			EP 844270 A	HCAPLUS

L314 ANSWER 17 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:22929 HCAPLUS

DN 138:90651

TI Manufacture of swellable acidic hydrogels for hygiene articles  
with improved odor control

IN Funk, Ruediger; Herfert, Norbert; Wanior, Mariola; Stueven, Uwe; Beck,  
Martin

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DT Patent

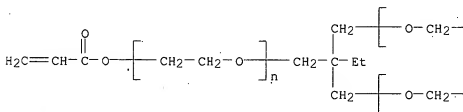
LA German

FAN.CNT 1

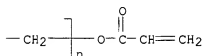
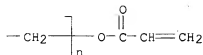
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003002623	A1	20030109	WO 2002-EP6877	20020621 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002316992	A1	20030303	AU 2002-316992	20020621 <--
EP 1425320	A1	20040609	EP 2002-745400	20020621 <--

EP 1425320 B1 20060920  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2004530777 T 20041007 JP 2003-509002 20020621 <--  
 AT 340199 T 20061015 AT 2002-745400 20020621 <--  
 ES 2271287 T3 20070416 ES 2002-2745400 20020621 <--  
 US 2004160189 A1 20040916 US 2003-480980 20031215 <--  
 US 2005234413 A1 20051020 US 2005-145653 20050606 <--  
 US 2007149716 A1 20070628 US 2007-706906 20070213 <--  
 PRAI DE 2001-10130671 A 20010628 <--  
 DE 2001-10142138 A 20010830 <--  
 DE 2001-10147713 A 20010927 <--  
 WO 2002-EP6877 W 20020621 <--  
 US 2003-480980 A3 20031215  
 US 2005-145653 B1 20050606  
 AB The title **hydrogels** comprise acrylic acid copolymers with pH  
 ≤5.7 and neutralization degree ≤60 mol.%, preferably 20-30  
 mol.%. For example, kneading aqueous solution containing acrylic acid, NaOH  
 and polyethylene glycol diacrylate (Sartomer 344) with aqueous solution of Na2S2S8  
 and ascorbic acid at 75° under N gave copolymer gel particles which  
 were sprayed with dispersion of ethylene glycol diglycidyl ether in aqueous  
 1,2-propanediol containing Al2(SO4)3 to give a surface-crosslinked  
**hydrogel** having pH 4.47, saline flow conductivity 13.8 + 10<sup>-7</sup>  
 cm3s/g, centrifuge retention capacity 20.7 g/g, **absorbency** under  
 load (0.7 psi) 18.1 g/g, N content (from NH3) 1.8 mg/L and Nessler value  
 20%.  
 IT **28961-43-5DP**, Polyethylene glycol trimethylolpropane ether  
 triacrylate, sodium salts  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (surface-crosslinked particles; manufacture of swellable acidic  
**hydrogels** for hygiene articles with improved odor control)  
 RN 28961-43-5 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-[(1-oxo-2-propen-1-yl)oxy]-  
 , ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (CA INDEX  
 NAME)

PAGE 1-A



PAGE 1-B



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Brandt, K	1988			US 32649 E	
Chem Fabrik Stockhausen	1997			DE 19529348 A	HCAPLUS
The Dow Chemical Co	1989			EP 0312952 A	HCAPLUS

L314 ANSWER 18 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:22925 HCAPLUS

DN 138:73703

 TI Water-**absorbent** carboxyl-containing polymers with low monomer content

IN Kim, Young-Sam

PA Dow Global Technologies Inc., USA

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003002618	A1	20030109	WO 2002-US20573	20020626 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002326321	A1	20030303	AU 2002-326321	20020626 <--
BR 2002010232	A	20040406	BR 2002-10232	20020626 <--
EP 1404724	A1	20040407	EP 2002-761022	20020626 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1520428	A	20040811	CN 2002-812682	20020626 <--
JP 2004531631	T	20041014	JP 2003-508997	20020626 <--
US 2004138362	A1	20040715	US 2004-469664	20040223 <--
PRAI US 2001-302330P	P	20010629 <--		
WO 2002-US20573	W	20020626 <--		

AB A water **absorbent** polymer with reduced residual monomer content is prepared using Ag ions and/or colloidal Ag. A process for the preparation comprises: (A) polymerizing a mixture of (a)  $\geq 1$  ethylenically unsatd. carboxyl-containing monomers (acrylic acid), (b)  $\geq 1$  crosslinking agents (polyacrylate), (c) optionally  $\geq 1$  comonomers, and (d) a

polymerization medium to form a crosslinked **hydrogel**, (B) comminuting the **hydrogel** to create particles and (C) drying the **hydrogel**; wherein Ag ions or colloidal Ag are added in at least one of the following steps: (i) to the polymerization mixture prior to or during step (A), or (ii) to the **hydrogel** prior to, during or after the comminution step (B) but prior to substantial drying of the **hydrogel** in step (C).

IT 154457-96-2P, Acrylic acid-ethoxylated trimethylolpropane triacrylate copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); \*USES (Uses) (water-absorbent carboxyl-containing polymers with low monomer content)

RN 154457-96-2 HCAPLUS

CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\alpha$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

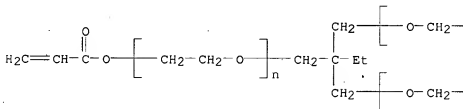
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CRN 28961-43-5

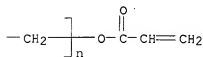
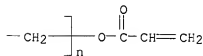
CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C15 H20 O6

CCI PMS

PAGE 1-A



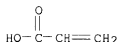
PAGE 1-B



CM 2

CRN 79-10-7

CMF C3 H4 O2



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Burgert, J	1997			US 5629377 A	IHCAPLUS
Fujiura, Y	1995			US 5453323 A	IHCAPLUS
Naico Chemical Co	1992			EP 0505163 A	IHCAPLUS
Ronald, M	1999			WO 9914248 A	IHCAPLUS

L314 ANSWER 19 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:22725 HCAPLUS

DN 138:90699

 TI **Superabsorbent** carboxyl-containing polymers containing silver  
with odor control properties and method for preparation

IN Kim, Young-Sam

PA Dow Global Technologies Inc., USA

SO PCT Int. Appl., 51 pp.

CODEN: PIXXD2

 DT **Patent**

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003002164	A2	20030109	WO 2002-US20874	20020626 <--
	WO 2003002164	A3	20030417		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002322368	A1	20030303	AU 2002-322368	20020626 <--
	EP 1404385	A2	20040407	EP 2002-756355	20020626 <--
	EP 1404385	B1	20070117		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2002011309	A	20040928	BR 2002-11309	20020626 <--
	CN 1547488	A	20041117	CN 2002-816703	20020626 <--
	JP 2004534581	T	20041118	JP 2003-508402	20020626 <--
	US 2007060691	A1	20070315	US 2004-480328	20040913 <--
PRAI	US 2001-302329P	P	20010629	<--	
	WO 2002-US20874	W	20020626	<--	
AB	A water-absorbent, water-insol. polymer comprises silver cations that are neither ion exchanged in a zeolite nor bonded in a water-insol. inorg. phosphate.				
IT	482593-21-5P				
	RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (superabsorbent carboxyl-containing polymers containing silver with odor control properties and method for preparation)				

RN 482593-21-5 HCAPLUS  
 CN 2-Propenoic acid, sodium salt, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

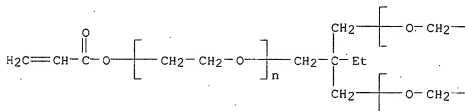
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CRN 28961-43-5

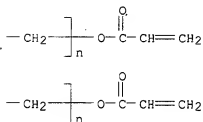
CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C15 H20 O6

CCI PMS

PAGE 1-A



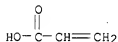
PAGE 1-B



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na



● Na

L314 ANSWER 20 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:707249 HCAPLUS

DN 137:233380

TI Manufacture of water-**absorbent** crosslinked (meth)acrylate resins with high water **absorption** rate

IN Kubota, Kozo; Nomura, Koji; Yamamoto, Hiroshi; Miho, Akira

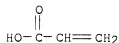




CM 3

CRN 7446-81-3

CMF C3 H4 O2 . Na

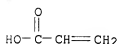


● Na

CM 4

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 21 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:693137 HCAPLUS

DN 137:202425

 TI Self-**absorbing** gas-barrier thermoformable sheet and receptacle for food packaging

IN Longo, Eugenio

PA Cryovac, Inc., USA

SO Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

 DT **Patent**

LA English .

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1238795	A1	20020911	EP 2001-105254	20010305 <--
	EP 1238795	B1	20050126		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	AT 287794	T	20050215	AT 2001-105254	20010305 <--
	ES 2237502	T3	20050801	ES 2001-1105254	20010305 <--
	AU 2002252314	A1	20020919	AU 2002-252314	20020305 <--
PRAI	EP 2001-105254	A	20010305	<--	
	WO 2002-US7566	W	20020305	<--	

AB A thermoformable laminate of a structural support layer (1), a core gas-barrier layer (2), a core liquid **absorbing** layer (3), and a surface, heat-sealable layer (4), has the gas-barrier layer is positioned between the structural support layer and the core **absorbing** layer, and the core **absorbing** layer is positioned between the core gas-barrier layer and the surface heat-sealable layer in the order described (no data). The laminate can be shaped into a self-**absorbing** gas-barrier receptacle for food packaging and employed

the in the production of e.g. modified atmospheric packages of food products where fluids generated by the products are **absorbed** by the receptacle without using a sep. **absorbing** pad.

IT 26299-60-5, Acrylic acid-vinyl alcohol copolymer  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (salts, liquid **absorbing** layer; self-**absorbing**,  
 gas-barrier, thermoformable sheet for food packaging)

RN 26299-60-5. HCAPLUS

CN 2-Propenoic acid, polymer with ethenol (CA INDEX NAME)

CM 1

CRN 557-75-5

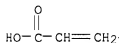
CMF C2 H4 O

H<sub>2</sub>C=CH-OH

CM 2

CRN 79-10-7

CMF C3 H4 O2



# RETABLE

Referenced Author (RAU)	Year   (RPY)	VOL   (RVL)	PG   (RPG)	Referenced Work (RWK)	Referenced File
Lustig, S	1989			US 4828891 A	HCAPLUS
Sheehan, F	1999			WO 9932286 A	HCAPLUS
Sviluppo Settori Impieg	1992			EP 0520509 A	

L314 ANSWER 22 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:408734 HCAPLUS

DN 136:402900

TI Production of water-**absorbing** and deodorizing composition for **absorbent** material

IN Ueda, Hiroko; Wada, Katsuyuki; Irie, Yoshio

PA Nippon Shokubai Co., Ltd., Japan

SO PCT Int. Appl., 70 pp.

CODEN: PIXXD2

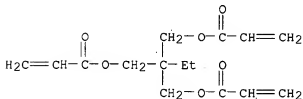
DT Patent

LA Japanese

FAN.CNT 1

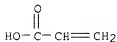
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002042379	A1	20020530	WO 2001-JP10172	20011121 <--
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RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2002285021	A	20021003	JP 2001-356553	20011121 <--
EP 1352927	A1	20031015	EP 2001-997526	20011121 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI, CY, TR  
 BR 2001015445 A 20040203 BR 2001-15445 20011122 <--  
 US 2003004479 A1 20030102 US 2002-148436 20020530 <--  
 PRAI JP 2000-356481 A 20001122 <--  
 JP 2000-400544 A 20001228 <--  
 WO 2001-JP10172 W 20011121 <--  
 AB Title water-**absorbing** particulate composition comprises (A) plant  
 powders and (B) water-**absorbing** resins surface-treated with  
 crosslinking agents, to have the deodorizing factor of  $\geq 180$   
 [deodorizing factor = (1.1 + hydrogen sulfide removal rate) + (2.0  
 + Me mercaptan removal rate) + (0.3 + ammonia removal rate)].  
 Thus, polyethylene glycol diacrylate-sodium acrylate copolymer was  
 surface-treated with a composition of propylene glycol and ethylene glycol  
 diglycidyl ether, 100 parts of which were dry-blended with white pepper  
 0.1 part to give a water-**absorbing** composition showing good  
 deodorization.  
 IT 244307-77-5P, Ethylene glycol diglycidyl ether-propylene  
 glycol-sodium acrylate-trimethylolpropane triacrylate copolymer  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (in water-**absorbing** composition with good deodorization for  
**absorbent** material)  
 RN 244307-77-5 HCAPLUS  
 CN 2-Propenoic acid, 2-ethyl-2-[[[1-oxo-2-propenyl]oxy]methyl]-1;3-  
 propanediyl ester, polymer with 2,2'-[1,2-ethanediylbis(oxyethylene)]bis[  
 oxirane], 1,2-propanediol and sodium 2-propenoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 15625-89-5  
 CMF C15 H20 O6



CM 2

CRN 7446-81-3  
 CMF C3 H4 O2 . Na

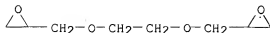


• Na

CM 3

CRN 2224-15-9

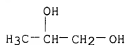
CMF C8 H14 O4



CM 4

CRN 57-55-6

CMF C3 H8 O2



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Marusan Sangyo K K	1985			JP 60174155 A	HCAPLUS
Nippon Shokubai Kagaku	1990			JP 241155 A	
Sanyo Chem Ind Ltd	1994			JP 06287220 A	HCAPLUS
Sanyo Chem Ind Ltd	1994			US 5384368 A	HCAPLUS
Sanyo Chem Ind Ltd	1994			EP 618005 A2	HCAPLUS
Sanyo Chemical Industri	2000			JP 200015093 A	
Ucc Ueshima Coffee K K	1998			JP 10314286 A	HCAPLUS

L314 ANSWER 23 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:868150 HCAPLUS

DN 136:11251

TI Intraocular lens implants comprising acrylic polymers

IN Barrett, Graham David

PA Australia

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

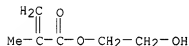
DT Patent

LA English

FAN.CMT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001089423	A1	20011129	WO 2001-AU578	20010518 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2409196	A1	20011129	CA 2001-2409196	20010518 <--
EP 1294314	A1	20030326	EP 2001-931215	20010518 <--

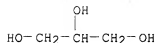
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 CN 1436062 A 20030813 CN 2001-811307 20010518 <--  
 JP 2003533336 T 20031111 JP 2001-585669 20010518 <--  
 BR 2001010960 A 20040113 BR 2001-10960 20010518 <--  
 CN 1692892 A 20051109 CN 2005-10074246 20010518 <--  
 MX 2002PA11449 A 20040910 MX 2002-PA11449 20021119 <--  
 PRAI AU 2000-7652 A 20000519 <--  
 CN 2001-811307 A3 20010518 <--  
 WO 2001-AU578 W 20010518 <--  
 AB A dehydrated intraocular lens implant is first folded and then inserted into the eye through an incision in the eye. The folded dehydrated intraocular lens implant is then allowed to unfold, hydrate in the eye and expand to its desired dimensions. The intraocular lens implant is comprised of a polymer, wherein the polymer is flexible and elastic when dehydrated so as to facilitate the intraocular lens implant to be folded and inserted into the incision in the eye. The polymer is also expansile when hydrated, such that after insertion into the eye, the intraocular lens implant hydrates and expands. A series of **hydrogel** polymers of hydroxyethyl methacrylate with increasing glycerol methacrylate as a copolymer was prepared. The optimum water content of the polymers was 35-65% with a range of swell ratios from 1.2-1.5%.  
 IT 113377-25-6  
 RL: DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (intraocular lens implants comprising acrylic polymers)  
 RN 113377-25-6 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 1,2,3-propanetriol 2-methyl-2-propenoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 868-77-9  
 CMF C6 H10 O3



CM 2  
 CRN 54174-14-0  
 CMF C4 H6 O2 . x C3 H8 O3  
 CM 3  
 CRN 79-41-4  
 CMF C4 H6 O2



CM 4

CRN 56-81-5  
 CMF C3 H8 O3


## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Barrett	1989			US 4808182 A	
Kabi Pharmacia Ophthalm	1994			WO 9407686 A1	HCAPLUS
Minnesota Mining and Ma	1990			EP 365138 A1	
Severin	1988			US 4787904 A	
Siepsier	1985			US 4556998 A	
Siepsier	1989			US 4813954 A	

L314 ANSWER 24 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:805342 HCAPLUS

DN 135:358836

 TI Water-absorbing polymers and fiber sheets containing the same  
 with good gel strength and elongation

IN Otaguro, Takahiro; Kashiwada, Toshinobu; Suzuki, Noriko; Hosokawa, Minoru

PA Lion Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 62 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FI	JP 2001310949	A	20011106	JP 2000-128466	20000427 <--
PRAI	JP 2000-128466		20000427 <--		

 AB The polymers are manufactured by irradiating electromagnetic or particulate  
 ionized radiation on  $\geq 1$  solns. chosen from (A) aqueous solns. of  
 poly(vinyl alcs.) bearing anionic or cationic groups, (B) aqueous solns. of  
 poly(vinyl alc.), water-soluble polymers having oxyethylene and/or  
 oxypropylene units with mol. weight  $\geq 100$ , etc. Thus, a  
 rayon-polypropylene nonwoven fabric sheet was impregnated with PVA S 2217  
 [SO3H-containing poly(vinyl alc.)] and irradiated with electron beam at dose  
 40 kGy, resulting in good gel strength and elongation.

 IT 373356-84-4P, Adeka G 4000-Jurymer AC 10HN copolymer  
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical  
 process); TEM (Technical or engineered material use); PREP (Preparation);  
 PROC (Process); USES (Uses)

 (water-absorbing polymers and fiber sheets containing the same  
 with good gel strength and elongation)

RN 373356-84-4 HCAPLUS

 CN 2-Propenoic acid, polymer with  $\alpha, \alpha', \alpha''$ -1,2,3-  
 propanetriyltris[ $\omega$ -hydroxypoly[oxy(methyl-1,2-ethanediyl)]]], sodium  
 salt (9CI) (CA INDEX NAME)

CM 1

CRN 89527-44-6

CMF ((C3 H6 O)n (C3 H6 O)n (C3 H6 O)n C3 H8 O3 . C3 H4 O2)x

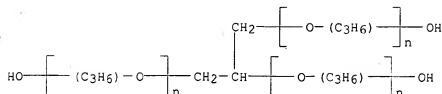
CCI PMS

CM 2

CRN 25791-96-2

 CMF (C3 H6 O)<sub>n</sub> (C3 H6 O)<sub>n</sub> (C3 H8 O)<sub>3</sub>

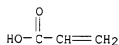
CCI IDS, PMS



CM 3

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 25 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:588646 HCAPLUS

DN 136:184857

 TI Synthesis of poly(ethylene glycol) monoester and its function in **superabsorbent** polymer

AU Yi, Guobin; Cui, Yingde; Liao, Liwen; Guo, Jianwei

CS Department of Chemical and Light Industry, Guangdong University of Technology, Canton, 510090, Peop. Rep. China

SO Huagong Jinzhan (2001), 20(6), 43-45

CODEN: HUJIEK; ISSN: 1000-6613

PB Huaxue Gongye Chubanshe

DT Journal

LA Chinese

 AB N-Butoxypoly(ethylene glycol) methacrylate (crosslinking agent) was prepared, and its effect on **absorbing** behavior of **superabsorbent** polymer was investigated through inverse suspension polymerization. The effects of mol. weight of poly(ethylene glycol), and the

 use level on **absorbing** properties of the polymer were studied.

**Absorbing** behavior of **superabsorbent** polymer was good at range of mol. weight of poly(ethylene glycol) from 400 to 800.

IT 400003-17-0P, Acrylic acid-ethylene oxide-sodium acrylate graft copolymer butyl ether

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

 (synthesis of poly(ethylene glycol) monoester and its function in **superabsorbent** polymer)

RN 400003-17-0 HCAPLUS

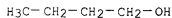
CN 2-Propenoic acid, polymer with oxirane and sodium 2-propenoate, butyl

ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 71-36-3

CMF C4 H10 O



CM 2

CRN 156841-46-2

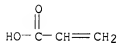
CMF (C3 H4 O2 . C3 H4 O2 . C2 H4 O . Na)x

CCI PMS

CM 3

CRN 7446-81-3

CMF C3 H4 O2 . Na

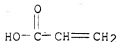


● Na

CM 4

CRN 79-10-7

CMF C3 H4 .O2



CM 5

CRN 75-21-8

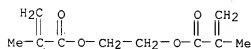
CMF C2 H4 O



L314 ANSWER 26 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN  
AN 2001:562148 HCAPLUS  
DN 136:168013



TI Water structure in hydroxyethyl-co-glycerol methacrylate materials  
 AU Gates, G.; Harmon, J.; Ors, J.; Benz, P.  
 CS Chemistry Department, University of South Florida, Tampa, FL, 33620-5250,  
 USA  
 SO Annual Technical Conference - Society of Plastics Engineers (2001  
 ), 59th(Vol. 2), 1891-1895  
 CODEN: ACPED4; ISSN: 0272-5223  
 PB Society of Plastics Engineers  
 DT Journal  
 LA English  
 AB Differential scanning calorimetry was used to analyze the state of water  
 in crosslinked glycerol methacrylate and hydroxyethyl methacrylate  
 hydrogel polymers. Glass transition temps. were obtained for the  
 dry materials and for the materials equilibrated at room temperature  
 (23°C) and humidity (55% relative humidity). The total crystallization  
 enthalpy was determined for these hydrogels equilibrated in water and  
 at several states of partial hydration. The enthalpic information was  
 used to quant. determine the fraction of nonfreezing water in the  
 hydrogels. The integrated areas of the crystallization exotherms were  
 reported to qual. access the freezing-bound and free water contents.  
 IT 396639-69-3, Ethylene glycol dimethacrylate-glycerol methacrylate  
 copolymer 396639-70-6, Ethylene glycol dimethacrylate-glycerol  
 methacrylate-2-hydroxyethyl methacrylate copolymer  
 RL: PRP (Properties)  
 (water structure in)  
 RN 396639-69-3 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with  
 1,2,3-propanetriol 2-methyl-2-propenoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 97-90-5  
 CMF C10 H14 O4

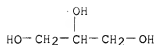


CM 2  
 CRN 54174-14-0  
 CMF C4 H6 O2 . x C3 H8 O3  
 CM 3  
 CRN 79-41-4  
 CMF C4 H6 O2



CM 4

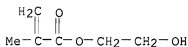
CRN 56-81-5  
CMF C3 H8 O3



RN 396639-70-6 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with  
2-hydroxyethyl 2-methyl-2-propenoate and 1,2,3-propanetriol  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

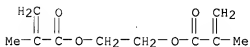
CM 1

CRN 868-77-9  
CMF C6 H10 O3



CM 2

CRN 97-90-5  
CMF C10 H14 O4



CM 3

CRN 54174-14-0  
CMF C4 H6 O2 . x C3 H8 O3

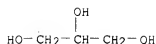
CM 4

CRN 79-41-4  
CMF C4 H6 O2



CM 5

CRN 56-81-5  
CMF C3 H8 O3



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
=====	+	+	+	+	+
Ahmad, M	1995	156	1397	Journal of Applied P	HCAPLUS
Anon				US 5532289	HCAPLUS
Chou, K	2000	140	11004	Engineering and Scie	HCAPLUS
Hatakeyama, H	1998	1308	13	Thermochimica Acta	HCAPLUS
Khare, A	1993	134	14736	Polymer	HCAPLUS
Murphy, S	1992	113	1979	Biomaterials	HCAPLUS
Fathmanathan, K	1990	128	1675	Journal of Polymer S	HCAPLUS
Peniche, C	1997	138	15977	Polymer	HCAPLUS
Quinn, F	1988	121	13191	Macromolecules	HCAPLUS

L314 ANSWER 27 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:517678 HCAPLUS

DN 135:93433

 TI Water-**absorbing** resins with crosslinked surfaces and the surface crosslinking method therefor

IN Nagasuna, Kinya; Ueno, Tsunemasa

PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

 DT **Patent**

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001192464	A	20010717	JP 2000-329501	20001027 <--
PRAI	JP 1999-309105	A	19991029	<--	

 AB Title resins, useful for sanitray napkins or disposable diapers, contain 0.3-3% (based on total resins) crosslinked surface layers with a thickness (T) of  $\geq 50$  nm and  $\leq 103$  nm. Spray mixing an ethylene glycol diglycidyl ether-containing organic solution with 2% water-containing acrylic

acid-Na acrylate-polyoxyethylene diacrylate copolymer powders and heating at 195° for 40 min gave a product having T of 380 nm and water absorption 20 g/g.

 IT 179824-68-1DP, partially neutralized 194162-67-9P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (manufacture of surface crosslinked acrylic resins for water absorbents)

RN 179824-68-1 HCAPLUS

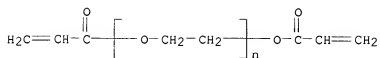
 CN 2-Propenoic acid, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9

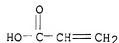
CMF (C2 H4 O)n C6 H6 O3

CCI PMS



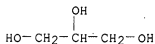
CM 2

CRN 79-10-7  
CMF C3 H4 O2



CM 3

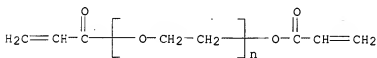
CRN 56-81-5  
CMF C3 H8 O3



RN 194162-67-9 HCAPLUS  
CN 2-Propenoic acid, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), 1,2,3-propanetriol and sodium 2-propenoate (9CI) (CA INDEX NAME)

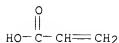
CM 1

CRN 26570-48-9  
CMF (C2 H4 O)n C6 H6 O3  
CCI PMS



CM 2

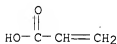
CRN 7446-81-3  
CMF C3 H4 O2 . Na



● Na

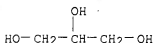
CM 3

CRN 79-10-7  
CMF C3 H4 O2



CM 4

CRN 56-81-5  
CMF C3 H8 O3



L314 ANSWER 28 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:472537 HCAPLUS

DN 135:66288

TI High permeability, low **absorption** capacity polymers for personal-care articles

IN Weir, Joseph L.; Buchholz, Fredric L.; Christensen, Stephen B.; Graham, Andrew T.

PA Dow Chemical Company, USA

SO PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DT Patent

LA English

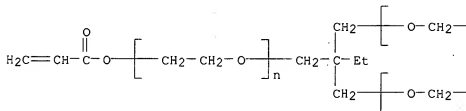
FAN.CMT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001045758	A1	20010628	WO 2000-US35082	20001221 <--
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1244474	A1	20021002	EP 2000-989437	20001221 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	JP 2003518150	T	20030603	JP 2001-546697	20001221 <--
	BR 2002005737	A	20060328	BR 2002-5737	20020619 <--
PRAI	US 1999-173016P	P	19991223	<--	

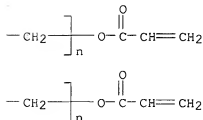
jan delaval - 25 october 2007

WO 2000-US35082 W 20001221 <--  
 AB An improved process is described for the preparation of **superabsorbent** polymers having high gel bed permeability and low **absorption** capacity, and the polymers prepared by the process. More specifically, the process is a process for the preparation of water-swallowable, water-insol. polymer particles having high gel bed permeability and low **absorption** capacity, the process comprising crosslinking the polymer using at least 2 covalent crosslinking agents under conditions such that there is formed a polymer which is substantially uniformly crosslinked and which has a gel bed permeability of at least  $5 \times 10^{-9}$  cm<sup>2</sup> and an **absorption** capacity of less than 26 g/g. The present invention includes articles containing the high permeability and low **absorption** capacity polymer. Thus, a polymer gel was prepared from ethoxylated trimethylolpropane triacrylate (Sartomer-9035) and acrylic acid and crosslinked with glycerol. The gel bed permeability was  $7 \times 10^{-9}$  cm<sup>2</sup>.  
 IT 154457-96-2P 166437-81-6P 166437-86-1P  
 RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (high permeability and low **absorption** capacity polymers for personal-care articles)  
 RN 154457-96-2 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 28961-43-5  
 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6  
 CCI PMS

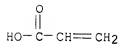
PAGE 1-A



PAGE 1-B



CM 2

 CRN 79-10-7  
 CMF C3 H4 O2


RN 166437-81-6 HCAPLUS

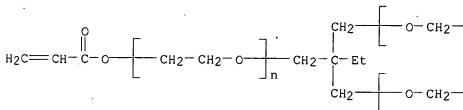
 CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), and 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

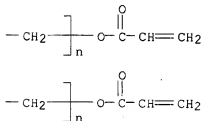
CRN 28961-43-5

 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6  
 CCI PMS

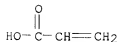
PAGE 1-A



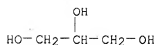
PAGE 1-B



CM 2

 CRN 79-10-7  
 CMF C3 H4 O2


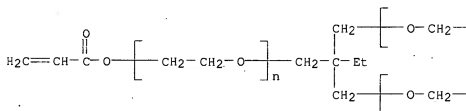
CM 3

 CRN 56-81-5  
 CMF C3 H8 O3

 RN 166437-86-1 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with  
 $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)  
 ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic  
 acid (9CI) (CA INDEX NAME)

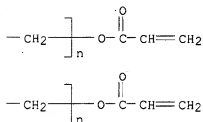
CM 1

 CRN 28961-43-5  
 CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C15 H20 O6  
 CCI PMS

PAGE 1-A



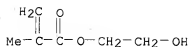
PAGE 1-B



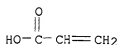
CM 2

 CRN 868-77-9  
 CMF C6 H10 O3





CM 3

 CRN 79-10-7  
 CMF C3 H4 O2


## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Dow Chemical Co	1994			WO 9420547 A	HCAPLUS
Gartner, H	1998			WO 9849221 A	HCAPLUS
Nippon Catalytic Chem I	1998			EP 0837076 A	HCAPLUS

L314 ANSWER 29 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:453124 HCAPLUS

DN 135:61783

TI Degradable poly(vinyl alcohol) hydrogels

IN Hirt, Thomas; Holland, Troy; Francis, Vimala; Chaouk, Hassan

PA Biocure, Inc., USA

SO PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001044307	A2	20010621	WO 2000-US42190	20001115 <--
WO 2001044307	A3	20020207		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2391618	A1	20010521	CA 2000-2391618	20001115 <--
AU 200149029	A	20010625	AU 2001-49029	20001115 <--
EP 1250361	A2	20021023	EP 2000-993007	20001115 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2003516810	T	20030520	JP 2001-544794	20001115 <--
US 6710126	B1	20040323	US 2000-714700	20001115 <--
PRAI US 1999-165531P	P	19991115	<--	
WO 2000-US42190	W	20001115	<--	

AB A biocompatible hydrogel is formed by crosslinking a first

component comprising a polyvinyl alc.-based prepolymer having at least one pendant chain bearing a first crosslinking group and a second component comprising a biodegradable region, a second crosslinking group capable of crosslinking with the first crosslinking group of the prepolymer, and a third crosslinking group capable of crosslinking with another second component wherein the **hydrogel** degrades in vivo. The crosslinking of one or more of the first, second, or third crosslinking groups can be initiated by a mechanism selected from the group consisting of thermal initiation, redox initiation, photoinitiation, or a combination thereof. A method of forming a degradable **hydrogel** at a site in a patient in need thereof comprising delivering the prepolymer having at least one pendant chain bearing the first crosslinking group and the second component comprising the biodegradable region, the second crosslinking group, and the third crosslinking group to the site in the patient, and initiating crosslinking of the first, second, and third groups thereby forming the **hydrogel**.

IT 345641-90-9P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (degradable polyvinyl alc. **hydrogels**)

RN 345641-90-9 HCAPLUS

CN Ethanol, homopolymer, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl butanedioate, homopolymer (9CI) (CA INDEX NAME)

CM 1

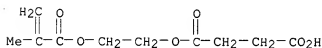
CRN 345641-89-6

CMF C10 H14 O6 . x (C2 H4 O)x

CM 2

CRN 20882-04-6

CMF C10 H14 O6



CM 3

CRN 9002-89-5

CMF (C2 H4 O)x

CCI PMS

CM 4

CRN 557-75-5

CMF C2 H4 O



IT 345641-89-6P

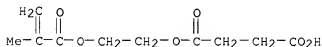
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of degradable polyvinyl alc. **hydrogels**)

RN 345641-89-6 HCAPLUS  
 CN Ethanol, homopolymer, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl butanedioate  
 (9CI) (CA INDEX NAME)

CM 1

CRN 20882-04-6

CMF C10 H14 O6



CM 2

CRN 9002-89-5

CMF (C2 H4 O)x

CCI PMS

CM 3

CRN 557-75-5

CMF C2 H4 O



L314 ANSWER 30 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:319791 HCAPLUS

DN 134:327619

TI Ion exchange resins and methods of making the same

IN Spindler, Ralph; Beihoffer, Thomas W.; Azad, Michael M.; Noe, Constance M.

PA Amcol International Corp., USA

SO PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001030495	A1	20010503	WO 2000-US13985	20000519 <--
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	AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 6569910	B1	20030527	US 2000-569315	20000511 <--
	EP 1230026	A1	20020814	EP 2000-937655	20000519 <--
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
	JP 2003512170	T	20030402	JP 2001-532900	20000519 <--

PRAI US 1999-161628P P 19991027 <--  
 WO 2000-US13985 W 20000519 <--

AB Ion exchange resins comprising a dry, granulated polymerization product of (a)  
 an

a,3-unsatd. acid or salt thereof, (b)  $\geq 1$  optional vinyl monomers, (c) a bulk crosslinking agent, and (d) a latent crosslinking agent, a surface crosslinking agent, or a mixture thereof, wherein the granules have an absorbance under no load (AUNL) of  $\leq 25$  g of tap water per g of granules, and, after hydration, have a volume  $\leq 10$  times greater than a volume of the granules prior to hydration. A method of manufacturing the ion exchange resins described above comprising the steps of: (a) polymerization the monomers and bulk crosslinking agent to form a polymeric hydrogel; (b) optionally incorporating a latent crosslinking agent into the hydrogel, and heating for a sufficient time at a sufficient temperature to form latent crosslinks; (c) drying and sizing the hydrogel to form dried granules; and, (d) optionally surface crosslinking the granules formed with a surface crosslinking agent to form an ion exchange resin, with at least one of optional steps (b) and (d) are performed. The ion exchange resins can be used for water purification and removal of temporary hardness in water resulting from bicarbonate alkalinity, and in pH buffering operations. A water purification cartridge comprising a housing having a water inlet and a water outlet, and the ion exchange resin granules positioned within the housing. Thus, acrylic acid and methylenebisacrylamide were polymerized, extruded, dried, ground and sized to give granules with particle size 170-800  $\mu$ , which were coated with Neneol EX-810 (ethylene glycol diglycidyl ether to give an ion exchange resin with AUL absorbency under a load of about 0.28 psi) of about 9 g of water absorbed per g of resin (g/g), and about 21 g/g of an aqueous solution of NaOH (0.1 M) and an AUNL about 8.3 g/g of water and about 33.9 g/g of an aqueous solution of NaOH.

IT 163443-92-3P, Acrylic acid-trimethylolpropane triacrylate-glycerol copolymer 336104-81-5P, Acrylic acid-trimethylolpropane triacrylate-propylene glycol copolymer 336104-84-8P, Acrylic acid-triallyl pentaerythritol ether-propylene glycol-glycerol copolymer 336104-89-3P, Acrylic acid-polyethylene glycol dimethacrylate-glycerol copolymer 336104-90-6P, Acrylic acid-triethylene glycol dimethacrylate-glycerol copolymer RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (ion exchanger; crosslinked acrylic monomer-vinyl monomer copolymer hydrogel as ion exchange resins and methods whereof)

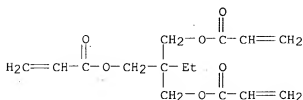
RN 163443-92-3 HCAPLUS

CN 2-Propenoic acid, polymer with 2-ethyl-2-[[[1-oxo-2-propenyl]oxy]methyl]-1,3-propanediyl di-2-propenoate and 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

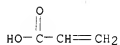
CRN 15625-89-5

CMF C15 H20 O6



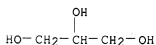
CM 2

CRN 79-10-7  
CMF C3 H4 O2



CM 3

CRN 56-81-5  
CMF C3 H8 O3

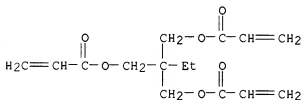


RN 336104-81-5 HCAPLUS

2-Propenoic acid, polymer with 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 1,2-propanediol (9CI) (CA INDEX NAME)

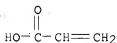
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CRN 15625-89-5  
CMF C15 H20 O6



CM 2

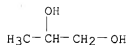
CRN 79-10-7  
CMF C3 H4 O2



CM 3

CRN 57-55-6

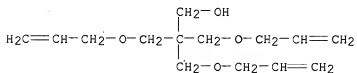
CMF C3 H8 O2



RN 336104-84-8 HCAPLUS  
CN 2-Propenoic acid, polymer with 1,2-propanediol, 1,2,3-propanetriol and 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol (9CI) (CA INDEX NAME)

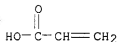
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CRN 1471-17-6  
CMF C14 H24 O4



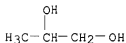
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CRN 79-10-7  
CMF C3 H4 O2



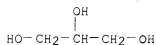
CM 3

CRN 57-55-6  
CMF C3 H8 O2



CM 4

CRN 56-81-5  
CMF C3 H8 O3



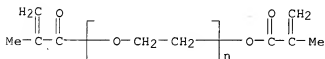
RN 336104-89-3 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -  
 [(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and  
 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 25852-47-5

CMF (C2 H4 O)<sub>n</sub> C8 H10 O3

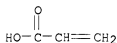
CCI PMS



CM 2

CRN 79-10-7

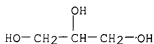
CMF C3 H4 O2



CM 3

CRN 56-81-5

CMF C3 H8 O3

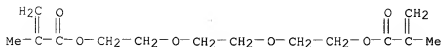


RN 336104-90-6 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester,  
 polymer with 1,2,3-propanetriol and 2-propenoic acid (9CI) (CA INDEX  
 NAME)

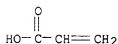
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CRN 109-16-0

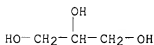
CMF C14 H22 O6



CM 2

 CRN 79-10-7  
 CMF C3 H4 O2


CM 3

 CRN 56-81-5  
 CMF C3 H8 O3


## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Belhoffer, T	1999			US 5962578 A	HCAPLUS
Farbenfabriken Bayer Gel				IGB 894392 A	HCAPLUS
Ici Australia Limited	1980			IAU 509755 B	HCAPLUS
Kofinas	1999			IWO 9940990 A	HCAPLUS
Mitsubishi Kasei Corpor	1994			IEP 0585898 A	HCAPLUS
Reed, S	1981			IUS 4263407 A	HCAPLUS
Rohm And Haas Company	1976			IGB 1440582 A	HCAPLUS
Rohm And Haas Company	1981			IGB 1602063 A	HCAPLUS
Rohm And Haas Company	1987			IEP 0228831 A	HCAPLUS
Schnell, H	1957			IUS 2783212 A	HCAPLUS
Swift, G	1978			IUS 4076917 A	HCAPLUS
The Dow Chemical Compan	1989			IWO 8908718 A	HCAPLUS
The Dow Chemical Compan	1994			IWO 9409043 A	HCAPLUS
United States Filter Col	1997			IWO 9729048 A	HCAPLUS

L314 ANSWER 31 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:519866 HCAPLUS

DN 133:193800

TI Characterization of hydrogels formed from acrylate modified poly(vinyl alcohol) macromers

AU Martens, P.; Anseth, K. S.

CS Department of Chemical Engineering, University of Colorado, Boulder, CO, 80309-0424, USA

SO Polymer (2000), 41(21), 7715-7722

CODEN: POLMAG; ISSN: 0032-3861

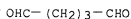
PB Elsevier Science Ltd.



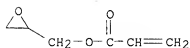
DT Journal  
 LA English  
 AB Poly(vinyl alc.) was modified with pendent acrylate groups to form a macromer that was crosslinked via photopolymn. Polymerization behavior was studied for several initial macromer concns. using DSC and Near-IR spectroscopy. Under mild photo-initiating conditions (e.g. 0.05 wt% initiator and less than 20 mW/cm<sup>2</sup> of 365 nm light), the **hydrogels** polymerized to 100% conversion in less than 5 min. To characterize the network structure, the **hydrogels** formed from the acrylated poly(vinyl alc.) macromer were compared to gels that were chemical crosslinked with glutaraldehyde and gels that were phys. crosslinked by semi-crystalline regions introduced through freeze-thaw cycles. The equilibrium swelling ratio and compressive modulus were characterized for all of the resulting PVA **hydrogels**, and related to the network structure (i.e. Mc) through a modified Flory-Rehner equation and rubber elasticity theory.  
 IT **289626-08-0P**, Glutaraldehyde-Glycidyl acrylate-vinyl alcohol copolymer  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crosslinked; preparation and characterization of **hydrogels** formed from acrylate modified poly(vinyl alc.) macromers)  
 RN **289626-08-0** HCAPLUS  
 CN 2-Propenoic acid, oxiranylmethyl ester, polymer with ethenol and pentanedial (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 557-75-5  
 CMF C2 H4 O



CM 2  
 CRN 111-30-8  
 CMF C5 H8 O2



CM 3  
 CRN 106-90-1  
 CMF C6 H8 O3



RETABE	Referenced Author	Year	VOL	PG	Referenced Work	Referenced
	(RAU)	(RPY)	(RVL)	(RPG)	(RWK)	File

Anseth, K	1996	17	1647	Biomaterials	HCAPLUS
Bryant, S	2000			Journal of Biomateri	
Buchholz, F	1994			Superabsorbent polym	
Canal, T	1989	23	1183	Journal of Biomedical	HCAPLUS
Chettri, P	1998	15	151	Journal of Polymer M	HCAPLUS
Decker, C	1994	45	333	Acta Polymer	HCAPLUS
Elliott, J	1999	32	8621	Macromolecules	HCAPLUS
Flory, P	1953			Principles of polymel	
Gung, Y	1997	18	367	Biomaterials	HCAPLUS
Hassan, C	1997	30	6166	Macromolecules	HCAPLUS
Hickey, A	1995	107	229	Journal of Membrane	HCAPLUS
Kim, K	1993	25	1295	Polymer Journal	HCAPLUS
Kloosterboer, J	1988	84	1	Advanced Polymer Sci	HCAPLUS
Kurihara, S	1996	37	1123	Polymer	HCAPLUS
Liou, F	1992	46	1967	Journal of Applied P	HCAPLUS
McKenna, G	1994	35	5737	Polymer	HCAPLUS
Morrison, R	1992			Organic chemistry	
Muhlebach, A	1997	35	3603	Journal of Polymer S	
Odian, G	1991			Principles of polymel	
Peppas, N	1986	I		Hydrogels in medicin	
Peppas, N	1987	III		Hydrogels in medicin	
Peppas, N	1982	27	4787	Journal of Applied P	HCAPLUS
Peppas, N	1992	18	95	Journal of Controlle	HCAPLUS
Peppas, N	1976	14	459	Journal of Polymer S	HCAPLUS
Stauffer, S	1992	33	3932	Polymer	HCAPLUS
Urushizaki, F	1990	58	135	International Journa	HCAPLUS

L314 ANSWER 32 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:360304 HCAPLUS

DN 134:72215

TI Synthesis and property of acrylic acid series **superabsorbent** resin

AU Fan, Aijuan; Zhang, Baohua; Zhou, Meiling

CS Chemical Engineering Department, Shanghai University, Shanghai, 200072, Peop. Rep. China

SO Shanghai Huagong (2000), 25(8), 18-20

CODEN: SHAHE2; ISSN: 1004-017X

PB Shanghai Huagong Bianjibu

DT Journal

LA Chinese

AB Acrylic acid polymer anion **superabsorbent** resin with water

**absorption** capacity of 500 g/g resin was obtained by polymerization at 70-80° of acrylic acid in the presence of NaOH as neutralization agent, methylenebisacrylamide, glycerol, and sorbitol as crosslinker, and ammonium persulfate as catalyst. The relationships between the water **absorption** capacity and initiator amount, monomer concentration, degree of neutralization, and type of crosslinking agent were discussed. The use of sorbitol as crosslinking agent gave **superabsorbent** with higher water capacity.

IT 116771-14-3P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation and properties of acrylic acid-based polymer water **superabsorbents**)

RN 116771-14-3 HCAPLUS

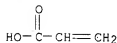
CN 2-Propenoic acid, polymer with 1,2,3-propanetriol, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 55738-42-6  
CMF (C3 H8 O3 . C3 H4 O2)x  
CCI PMS

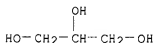
CM 2

CRN 79-10-7  
CMF C3 H4 O2



CM 3

CRN 56-81-5  
CMF C3 H8 O3



L314 ANSWER 33 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:325162 HCAPLUS

DN 133:31302

TI Preparation and characterisation of processable conducting polymer-**hydrogel** composites

AU Kim, B. C.; Spinks, G.; Too, C. O.; Wallace, G. G.; Bae, Y. H.

CS Intelligent Polymer Research Institute, Department of Chemistry,

University of Wollongong, Wollongong, 2522, Australia

SO Reactive & Functional Polymers (2000), 44(1), 31-40

CODEN: RFPOF6; ISSN: 1381-5148

PB Elsevier Science B.V.

DT Journal

LA English

AB In this work conducting polypyrrole/**hydrogel** composites have been prepared by blending conducting polypyrrole colloids with processable polymer gels. In one case a soluble **hydrogel** was used and the other a thermally formed gel was employed. The composites formed were electroactive and electronic conductivities of the order of 10<sup>-5</sup> S cm<sup>-1</sup> could be obtained. The presence of the colloids affected the dehydration/rehydration behavior of the gels and decreased the capacity for water **absorption**. These composites should find application in areas such as controlled release devices or artificial muscles, systems that require polymer structures that can be elec. stimulated.

IT 55738-42-6, Acrylic acid-glycerol copolymer

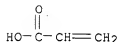
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(processable conducting polypyrrole-**hydrogel** composites containing)

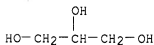
RN 55738-42-6 HCAPLUS

CN 2-Propenoic acid, polymer with 1,2,3-propanetriol (CA INDEX NAME)

CM 1

 CRN 79-10-7  
 CMF C3 H4 O2


CM 2

 CRN 56-81-5  
 CMF C3 H8 O3


## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Aldissi, M	1991	19	21	Progr Org Coat	HCAPLUS
Bae, Y				IJ Control Release, s	
Bakhshi, A	1985	18	469	Bull Mater Sci	
Barisci, J	1997	126	129	Colloids Surf	HCAPLUS
Cooper, E	1989	22	1580	IJ Phys D Appl Phys	HCAPLUS
Eisazadeh, H	1994	35	3801	Polymer	HCAPLUS
Ghosh, S	1993	60	133	Synth Met	HCAPLUS
Hodgson, A	1994	2	135	Polymer Gels Network	
Osada, Y	1989	82	346	Adv Polym Sci	
Roth, S	1995	87	699	Acta Phys Polonica A	HCAPLUS
Small, C	1997	5	251	Polymer Gels Network	HCAPLUS
Wallace, G	1997	84	323	Synth Met	HCAPLUS

L314 ANSWER 34 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:633384 HCAPLUS

DN 131:262671

 TI Water-absorbing agents, their manufacture, and their articles  
 containing antimicrobials

IN Nagasuna, Kinya; Mitsugami, Yoshiaki; Motono, Yoshihiro

PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11267500	A	19991005	JP 1998-73960	19980323 <--
PRAI JP 1998-73960		19980323	<--	

 AB The agents are manufactured by adding antimicrobials to water-absorbing  
 polymers which show water absorption 25 g/g under pressure  
 within 20-50 s. The articles, e.g., diapers and sanitary napkins, containing  
 the water-absorbing agents above consist of water-

absorbing layers containing **absorbents** composed of water-absorbing polymers (A) and fiber substrates (B) at A/(A + B) weight ratio  $\geq 0.3$ , liquid-permeable surface sheets, and liquid-impermeable back sheets. N acrylate (neutralization ratio 75 mol%) was polymerized with polyethylene glycol diacrylate and then crosslinked with propylene glycol and ethylene glycol diglycidyl ether to give a polymer, 100 parts of which was mixed with 2 parts aqueous solution containing 10% benzalkonium chloride

to give

a water-absorbing agent showing water absorption 34 g/g under pressure within 28 s and total control of Escherichia coli. A diaper was prepared, which consisted of an **absorbent** from 50:50 (by weight) mixture of the polymer and wood pulp, a liquid-permeable polypropylene top sheet, and a liquid-impermeable polypropylene back sheet.

IT 130425-88-6P, Acrylic acid-glycerin-sodium acrylate-trimethylolpropane triacrylate copolymer 245083-16-3P  
 RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(water-absorbing crosslinked polyacrylates containing antimicrobials for diapers and sanitary napkins)

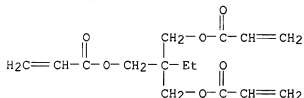
RN 130425-88-6 HCAPLUS

CN 2-Propenoic acid, polymer with 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 1,2,3-propanetriol and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 15625-89-5

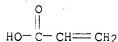
CMF C15 H20 O6



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

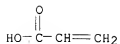


● Na

CM 3

CRN 79-10-7

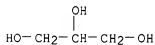
CMF C3 H4 O2



CM 4

CRN 56-81-5

CMF C3 H8 O3



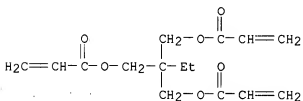
RN 245083-16-3 HCAPLUS

CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxyethylene)]bis[o  
xirane], 2-ethyl-2-[[1(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl  
di-2-propenoate, 1,2-propanediol and sodium 2-propenoate (9CI) (CA INDEX  
NAME)

CM 1

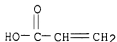
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CMF C15 H20 O6



CM 2

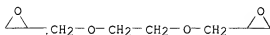
CRN 7446-81-3

$$\text{CMF} \quad \text{C3} \quad \text{H4} \quad \text{O2} \quad , \quad \text{Na}$$


● Na

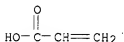
CM 3

CRN 2224-15-9  
CMF C8 H14 O4



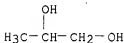
CM 4

CRN 79-10-7  
CMF C3 H4 O2



CM 5

CRN 57-55-6  
CMF C3 H8 O2



L314 ANSWER 35 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:620492 HCAPLUS

DN 131:244333

TI Water **absorbent** polymer compositions having improved crosslinking reactivity and good moisture **absorption** and their manufacture

IN Nagasuna, Kinya; Mitsukami, Yoshiaki; Ishizaki, Kunihiro

PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

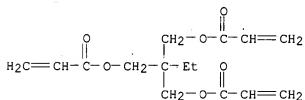
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11263850	A	19990928	JP 1998-343114	19981202 <--
PRAI	JP 1997-331461	A	19971202	<--	

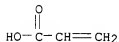
AB The composition having liquid **absorption** rate  $\geq 25$  g/g at pressure 20 g/cm<sup>2</sup> (based on physiol. salt solution), useful for sanitary materials, especially, sanitary napkins, pads for adults, etc., is manufactured by surface covering and crosslinking acid water-**absorbent** polymer particles with a crosslinking agent composition containing a polyalc. in physiol.

salt solution at pH  $\leq 5.5$ . Thus, 100 parts acid water-**absorbent** polymer particles prepared from Na acrylate and

trimethylolpropane triacrylate was mixed with 1,4-butanediol 1, isopropanol 0.3 and water 3 parts, and heated at 180° for 22 min to give an **absorbent** having average particle diameter 300  $\mu$ m, residual monomer content 250 ppm, and **absorption** rate 30.4 g/g at pressure 20 g/cm<sup>2</sup> and pH 5.4 (based on physiol. salt solution).  
 IT 244307-75-3P, 1,4-Butanediol-sodium acrylate-trimethylolpropane triacrylate copolymer 244307-77-5P, Ethylene glycol diglycidyl ether-propylene glycol-sodium acrylate-trimethylolpropane triacrylate copolymer  
 RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (polyalc.-surface crosslinked water-**absorbing** resin for sanitary materials).  
 RN 244307-75-3 HCAPLUS  
 CN 2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy)methyl]-1,3-propanediyl ester, polymer with 1,4-butanediol and sodium 2-propenoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 15625-89-5  
 CMF C15 H20 O6

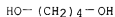


CM 2  
 CRN 7446-81-3  
 CMF C3 H4 O2 . Na



● Na

CM 3  
 CRN 110-63-4  
 CMF C4 H10 O2







L314 ANSWER 36 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:613754 HCAPLUS

DN 131:229862

 TI Polymeric desiccant articles having low sorption capacity and controllable swellability for repeated water vapor **absorption** and desorption and manufacture thereof

IN Cote, Roland; Hosatte, Sophie; Amazouz, Mouloud

PA Canada, Minister of Natural Resources, Can.

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9947241	A1	19990923	WO 1999-CA234	19990315 <--

W: AU, CA, JP, MX

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

US 6110533	A	20000829	US 1998-39409	19980316 <--
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CA 2324113	A1	19990923	CA 1999-2324113	19990315 <--
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CA 2324113	C	20040210		
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AU 9927093	A	19991011	AU 1999-27093	19990315 <--
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PRAI US 1998-39409	A	19980316 <--		
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WO 1999-CA234	W	19990315 <--		
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 AB Articles or particles comprising a substrate and a polymeric desiccant either impregnated therein or coated thereon are prepared by wetting a substrate with a solution comprising a monomer, a homolytic reaction initiator, a cross-polymerization agent, and  $\geq 1$  solvents; heating to effect polymerization; and forming the polymer salt. Polymeric desiccant particles can be used as a coating material for desiccant articles. Thus, corrugated cardboard is immersed in an aqueous solution comprising 274 mL acrylic

acid (half neutralized with KOH), 275 mL 1,2-propanediol, and 27 mL trimethylolpropane ethoxylate triacrylate in acetone; desiccated; polymerized 2 h at 70-80°; and immersed in methanolic KOH; giving **absorption** capacities 35, 45, and 90% at relative humidity 30, 60, and 90%, resp.

IT 28961-43-5, Trimethylolpropane ethoxylate triacrylate

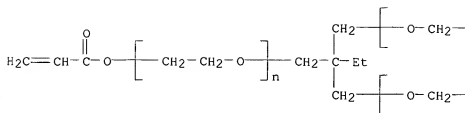
RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agent; polymeric desiccant articles having low sorption capacity and controllable swellability for repeated water vapor **absorption** and desorption and manufacture thereof)

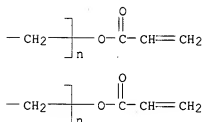
RN 28961-43-5 HCAPLUS

 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Kazuo, S	1988			US 4748076 A	HCAPLUS
Kazuo, S	1991			US 5026596 A	
Kiichi, I	1990			US 4948659 A	
Kurt, D	1996			US 5567478 A	

L314 ANSWER 37 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:597487 HCAPLUS

DN 131:215146

 TI Hydrophilic resin, **absorbent** article, and acrylic acid for polymerization

IN Fujimaru, Hirokazu; Ishizaki, Kunihiko; Harada, Nobuyuki; Nakahara, Sei

PA Nippon Shokubai Co., Ltd., Japan

SO Eur. Pat. Appl., 37 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 942014	A2	19990915	EP 1999-104213	19990302 <--
EP 942014	A3	20000524		
EP 942014	B1	20070131		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6444744	B1	20020903	US 1999-258503	19990227 <--
TW 570933	B	20040111	TW 1999-88103083	19990301 <--
SG 75923	A1	20001024	SG 1999-1042	19990302 <--
JP 11322846	A	19991126	JP 1999-64026	19990310 <--
CN 1234407	A	19991110	CN 1999-103660	19990311 <--
BR 9900992	A	20000111	BR 1999-992	19990311 <--

CN 1495206 A 20040512 CN 2003-2003140677 19990311 <--  
 PRAI JP 1998-60060 A 19980311 <--  
 AB The invention provides a hydrophilic resin and an **absorbent**

article, both of which display reduced color and discoloration when preserved for a long time. The hydrophilic resin is any one of: 1) a hydrophilic resin, obtained by a process including the step of polymerizing a monomer component including a major proportion of either one or both of acrylic acid and its salt which have a content of at most 0.20 ppm in total of hydroquinone and benzoquinone; 2) a hydrophilic resin, comprising a major proportion of an acrylic polymer and a minor proportion of either one or both of hydroquinone and benzoquinone, with the hydrophilic resin further comprising a quinhydrone inhibitor of 10. apprx.1,000,000 times the total weight of hydroquinone and benzoquinone; 3) a hydrophilic resin, comprising a major proportion of an acrylic polymer and merely having a coloring degree (YI) of at most 20 after being left under conditions of the open system, 70 °C, 65% RH for 1 wk; and 4) a hydrophilic resin, which is a water-**absorbent** resin and is surface-crosslinked or surface-impregnated with a polyhydric alc. and displays pH of 5.5 or less in a physiol. salt solution and has an **absorption** capacity of 20 g/g or more for a physiol. salt solution under a load of 50 g/cm<sup>2</sup>. In addition, the **absorbent** article comprises the above hydrophilic resin.

IT **242482-47-9P**, Acrylic acid-1,4-butanediol-sodium acrylate-trimethylolpropane triacrylate copolymer  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (hydrophilic resin, **absorbent** article, and acrylic acid for polymerization)

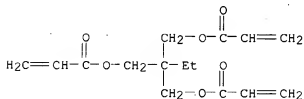
RN 242482-47-9 HCAPLUS

CN 2-Propenoic acid, polymer with 1,4-butanediol, 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl-1,3-propanediyl di-2-propenoate and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 15625-89-5

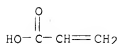
CMF C15 H20 O6



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

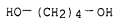


● Na

CM 3

CRN 110-63-4

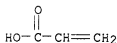
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CM 4

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 38 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:183873 HCAPLUS

DN 130:253064

TI Colored water **absorbent** resins and their uses in hygienic products

IN Nagasuna, Kinya

PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT **Patent**

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11071529	A	19990316	JP 1998-178201	19980625 <--
PRAI	JP 1997-178288	A	19970703	<--	
AB	The resins have liquid <b>absorption</b> rate (A) >20 g/g and <b>absorption</b> speed <40 s and are useful for disposable diapers, sanitary napkins, etc. The coloring of <b>absorbent</b> resins is done with non-migration dyes such as food colors. An <b>absorbent</b> resin was obtained from sodium acrylate and polyethylene glycol diacrylate and modified with surface crosslinker from glycerin for improving water <b>absorption</b> .				
IT	194162-67-9P, Acrylic acid-glycerine-polyethylene glycol diacrylate-sodium acrylate copolymer RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				

(colored water **absorbent** resins and uses in hygienic products)

RN 194162-67-9 HCAPLUS

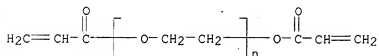
CN 2-Propenoic acid, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxypoly(oxy-1,2-ethanediyl), 1,2,3-propanetriol and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9

CMF (C2 H4 O)n C6 H6 O3

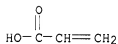
CCI PMS



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

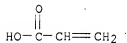


● Na

CM 3

CRN 79-10-7

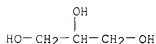
CMF C3 H4 O2



CM 4

CRN 56-81-5

CMF C3 H8 O3



L314 ANSWER 39 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1999:39920 HCAPLUS  
 DN 130:140061  
 TI Water **absorption** polymer composition and its production method  
 IN Nagasuna, Kinya; Motono, Yoshihiro; Harada, Nobuyuki  
 PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 FAN.CNT 1

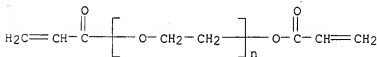
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11005847	A	19990112	JP 1998-50589	19980303 <--
PRAI	JP 1997-108823	A	19970425	<--	

AB The composition, useful as **medical** goods and having good release of medicines, comprises a water **absorption** polymer and a medicine, wherein the **absorption** ratio of  $\alpha$  ( **absorption** ratio before mixing with the medicine at 50 g/cm<sup>2</sup>) and **absorption** ratio of  $\beta$  ( **absorption** ratio after mixing with the medicine at 50 g/cm<sup>2</sup>) of the polymer satisfies with  $\alpha \geq 20$  g/g,  $\beta/\alpha \geq 0.85$ . Thus, a composition having  $\beta/\alpha$  0.98,  $\alpha$  33 g/g,  $\beta$  26.2 g/g was made from a copolymer, prepared by polymerizing of Na acrylate and polyethylene glycol diacrylate then crosslinking reaction with ethylene glycol diglycidyl and propylene glycol, containing 0.1 % Na Cu chlorophyllin.

IT 220090-94-8  
 RL: BUU (Biological use, unclassified); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (water **absorption** polymer composition and its production method)  
 RN 220090-94-8 HCAPLUS  
 CN 2-Propenoic acid, sodium salt, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1,2,3-propanetriol (9CI) (CA INDEX NAME)

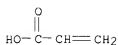
CM 1

CRN 26570-48-9  
 CMF (C2 H4 O)<sub>n</sub> C6 H6 O3  
 CCI PMS



CM 2

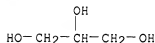
CRN 7446-81-3  
 CMF C3 H4 O2 . Na



● Na

CM 3

CRN 56-81-5  
CMF C3 H8 O3



L314 ANSWER 40 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:689354 HCAPLUS

DN 129:276920

TI Carboxylate group-containing **hydrogel** polymer particles exhibiting improved **absorption** for water and watery and serous fluids and their manufacture and use

IN Breitbach, Ludger; Mertens, Richard

PA Stockhausen G.m.b.H. und Co. K.-G., Germany

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT **Patent**

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19813443	A1	19981008	DE 1998-19813443	19980326 <--
PRAI	DE 1998-19813443		19980326 <--		

AB Title particles with improved **absorption** for water and watery and serous fluids are manufactured by coating the particles with ≥1 polyalkylene glycol and a crosslinker such as alkylene carbonates. Typical particles are manufactured by spraying 884 g dried particles of polymers prepared from ethoxylated trimethylolpropane triacrylate/allyl methacrylate crosslinker and 70 mol% neutralized acrylic acid with 60 g 10-20% polyethylene glycol (mol. weight 1500), drying 2 h at 150°, mixing the dried particles with a solution containing ethylene carbonate 0.5, water 2, and Me2CO 4% (based on polymer), and heating 25 min at 180°.

IT 28961-43-5D, Ethoxylated trimethylolpropane triacrylate, polymers with acrylate salts and allyl methacrylate  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(carboxylate group-containing **hydrogel** polymer particles exhibiting improved **absorption** for water and watery and serous fluids)

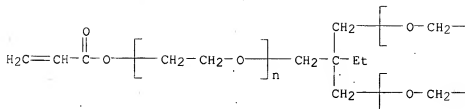
RN 28961-43-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (CA INDEX

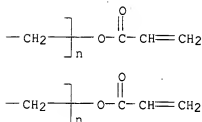


NAME)

PAGE 1-A



PAGE 1-B



L314 ANSWER 41 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:645300 HCAPLUS

DN 129:290669

 TI Poly(acrylic acid)-poly(vinyl alcohol) copolymers with **superabsorbent** properties

AU Argade, Ankush B.; Peppas, Nicholas A.

CS Polymer Science and Engineering Laboratories, School of Chemical Engineering, Purdue University, West Lafayette, IN, 47908-1283, USA

SO Journal of Applied Polymer Science (1998), 70(4), 817-829

CODEN: JAPNAB; ISSN: 0021-8995

PB John Wiley &amp; Sons, Inc.

DT Journal

LA English

 AB Biodegradable polyacrylates were produced by a series of novel copolymn. and/or crosslinking techniques using poly(vinyl alc.) (PVA) moieties modified by the incorporation of olefinic structures. PVA was modified by a tosylation and/or detosylation reaction. The functionalized PVA was copolymd. and/or crosslinked with acrylic acid or its partially neutralized form to give crosslinked polyacrylates that could swell in water. Their swelling behavior was determined under load. Degradation studies were performed in  $\alpha$ -chymotrypsin, trypsin, and papain solns.

IT 26299-60-5P, Acrylic acid-vinyl alcohol copolymer

 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation of crosslinked acrylic acid-vinyl alc. copolymers with **superabsorbent** properties)

RN 26299-60-5 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol (CA INDEX NAME)

CM 1

CRN 557-75-5

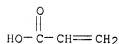
CMF C2 H4 O



CM 2

CRN 79-10-7

CMF C3 H4 O2



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL. (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Adams, R	1964	11	184	Organic Synthesis Co	
Bell, C	1996	134	167	Int J Pharm	HCAPLUS
Bell, C	1996	136	1856	Polym Eng Sci	HCAPLUS
Buchholz, F	1990	1	123	Absorbent Polymer Te	HCAPLUS
Chiellini, E	1987	12	1238	J Bioact Comput Poly	
Nace, H	1959	181	15428	J Am Chem Soc	HCAPLUS
Peppas, N	1976	114	1441	J Polym Sci, Polym C	HCAPLUS
Suzuki, T	1979	125	1431	J Appl Polym Sci, Ap	
Takabe, Y	1991	140	1E907	Polym Prepr, Jpn	
Tanaka, T	1991	140	1E904	Polym Prepr Jpn	
Tsuji, M	1991	140	1E905	Polym Prepr, Jpn	
Wintersteiner, O	1943	165	1503	J Am Chem Soc	HCAPLUS

L314 ANSWER 42 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:482104 HCAPLUS

DN 129:250178

TI Transport properties of PEG gels

AU Mellott, M.; Searcy, K.; Pishko, M. V.

CS Chem. Engr. Dept., Texas A &amp; M Univ., College Station, TX, 77843, USA

 SO Proceedings of the International Symposium on Controlled Release of  
Bioactive Materials (1998), 25th, 900-901

CODEN: PCRMZY; ISSN: 1022-0178

PB Controlled Release Society, Inc.

DT Journal

LA English

 AB The transport properties of bovine serum albumin from encapsulating PEG  
diacrylate polymer hydrogels were characterized for different  
types and amts. of comonomer (styrene, acrylic acid, allylamine).

 IT 80297-79-6P, Polyethylene glycol diacrylate-pentaerythritol  
triacylate copolymer 213322-21-5P, Acrylic acid-polyethylene  
glycol diacrylate-pentaerythritol triacylate copolymer  
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);  
BIOL (Biological study); PREP (Preparation); USES (Uses)  
(protein transport properties of polyethylene glycol acrylic  
hydrogels)

RN 80297-79-6 HCAPLUS

CN 2-Propenoic acid, 1,1'-[2-(hydroxymethyl)-2-[[[(1-oxo-2-propen-1-yl)oxy]methyl]-1,3-propanediyl] ester, polymer with α-(1-oxo-2-

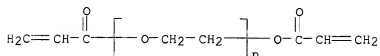
propen-1-yl)-ω-[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl)  
(CA INDEX NAME)

CM 1

CRN 26570-48-9

$$\text{CMF} \quad (\text{C}_2 \text{ H}_4 \text{ O})_n \text{ C}_6 \text{ H}_6 \text{ O}_3$$

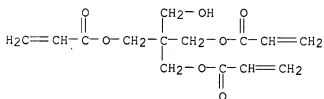
CCI PMS



CM 2

CRN 3524-68-3

CMF C14 H18 O7



RN 213322-21-5 HCAPLUS

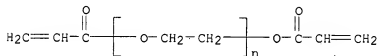
CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[[1-(oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[[1-(oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9

$$\text{CMF} \quad (\text{C}_2 \text{ H}_4 \text{ O})_n \text{ C}_6 \text{ H}_6 \text{ O}_3$$

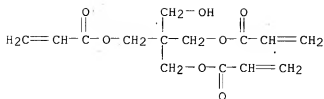
CCI PMS



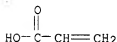
CM 2

CRN 3524-68-3

CMF C14 H18 O7



CM 3

 CRN 79-10-7  
 CMF C3 H4 O2


## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Drumheller, P	1995	129	1207	IJ Biomed Mater Res	IHCAPLUS
Pathak, C	1992	133	165	I Polymer Preprints	IHCAPLUS
Sefton, M	1984	173	1859	IJ Pharm Sci	IHCAPLUS

L314 ANSWER 43 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:609679 HCAPLUS

DN 127:268071

 TI **Hydrogel** adhesive for attaching medical device to patient

IN Meathrel, William G.; Saleem, Mohammad; Binks, Shirley A.

PA Graphic Controls Corp., USA

SO U.S., 18 pp., Cont.-in-part of U.S. 5,474,065.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5665477	A	19970909	US 1995-487806	19950607 <--
PRAI	US 1994-222729	A2	19940404	<--	

AB A biocompatible **hydrogel** adhesive which is prepared from a precursor containing acrylic acid and an alcoholamine and is adhesive under both wet and dry conditions. The use of diisopropanolamine provides these unexpected and unique wet tack properties and permits adhesion to wet tissue. Addnl., the use of a polyol which contains hydroxyl groups, such as glycerin, and a diamine, such as 2-methylpentamethylenediamine, is found to provide a **hydrogel** having wet adhesive properties and longer shelf life. The **hydrogel** adhesive can be used as an attachment means in conjunction with a biomedical detection or monitoring means. The adhesive may be used to attach a sensor on the skin of an intratero fetus and to monitor the well being of the fetus during labor and delivery. The **hydrogel** having wet adhesive properties permits the attachment of a sensor or sensors onto wet tissue. The biocompatible adhesive is used to attach a fetal probe securely to a

fetus. The adhesive can be used as an attachment means for a drug delivery or prosthetic device or as an attachment means for fixing a contraceptive device to the wall of the uterus. The attachment means could also be used in the oral cavity to fix a sensor or for oral therapies. A **hydrogel** adhesive was prepared by polymerization of a mixture comprising potassium chloride 3.0, water 29.2, glycerin 14.24, potassium polyacrylate 4.2, diisopropanolamine 24.15, acrylic acid 24.9, Darocur 1173 0.35, and PEGDA 0.10%.

IT 179824-68-1P

RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(hydrogel adhesive for attaching medical device to patient)

RN 179824-68-1 HCAPLUS

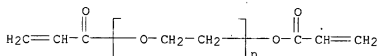
CN 2-Propenoic acid, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9

CMF (C2 H4 O)n C6 H6 O3

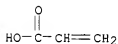
CCI PMS



CM 2

CRN 79-10-7

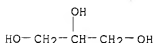
CMF C3 H4 O2



CM 3

CRN 56-81-5

CMF C3 H8 O3



L314 ANSWER 44 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN  
AN 1997:380546 HCAPLUS  
DN 127:35637

TI Water-**absorbable** acrylic resins with excellent urine resistance  
 and water **absorptivity** under high pressure and their manufacture  
 IN Yanase, Toru; Kimura, Kazuki; Nagasuna, Kinya; Shioji, Naotake  
 PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan; Nippon Shokubai Co., Ltd.  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09124710	A	19970513	JP 1995-286263	19951102 <--
	JP 3606966	B2	20050105		
PRAI	JP 1995-286263		19951102 <--		

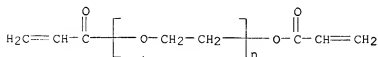
AB The resins, useful for **medical** goods such as diapers and  
 sanitary napkins, are manufactured by polymerization of hydrophilic acrylic  
 monomers

and/or their metal salts in the presence of intramol. crosslinking agents  
 and H<sub>3</sub>PO<sub>3</sub> and/or its salts to give resin precursors, which are treated  
 with surface crosslinking agents reactive with carboxy groups under  
 heating. The resins, showing **absorptivity** of physiolo. saline  
 ≥36 g/g under normal pressure and ≥24 under high pressure  
 and flow rate ≤1 mm/min after 16 h from **absorption** with  
 artificial urine, are also claimed. Thus, 5367 g 33% aqueous solution of 1:3  
 (mol) acrylic acid/Na acrylate monomer mixture was polymerized with 5.74 g  
 polyethylene glycol diacrylate at 26° in the presence of Na  
 phosphonate and Na persulfate to give a resin precursor, 100 parts of  
 which was treated with 0.05 part ethylene glycol diglycidyl ether at  
 200° to give the water-**absorbable** resin showing  
**absorptivity** of physiolo. saline 41 g/g under normal pressure and  
 26 under high pressure, and excellent stability at urine  
**absorption** for over 20 h.

IT 170368-24-8P, Acrylic acid-ethylene glycol diglycidyl  
 ether-glycerin-polyethylene glycol diacrylate-sodium acrylate copolymer  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (manufacture of water-**absorbable** acrylic resins with excellent  
 urine resistance and water **absorptivity** under high pressure)  
 RN 170368-24-8 HCAPLUS  
 CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanedibis(oxyethylene)]bis(o  
 xirane), α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-  
 propenyl)oxy]poly(oxy-1,2-ethanedibis), 1,2,3-propanetriol and sodium  
 2-propenoate (9CI) (CA INDEX NAME)

CM 1

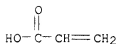
CRN 26570-48-9  
 CMF (C2 H4 O)n C6 H6 O3  
 CCI PMS



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

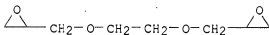


● Na

CM 3

CRN 2224-15-9

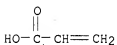
CMF C8 H14 O4



CM 4

CRN 79-10-7

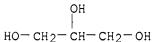
CMF C3 H4 O2



CM 5

CRN 56-81-5

CMF C3 H8 O3



L314 ANSWER 45 OF 64 HCAPLUS COPYRIGHT 2007 ACS on SIN

AN 1997:240499 HCAPLUS

DN 126:226246

TI Polymeric **absorbents** for water and aqueous fluids

IN Dahlen, Kurt; Peppmoeller, Reinmar

PA Chemische Fabrik Stockhausen GmbH, Germany

SO Ger. Offen., 9 pp.

CODEN: GWXXBX

DT **Patent**

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE.	APPLICATION NO.	DATE
PI	DE 19529348	A1	19970213	DE 1995-19529348	19950809 <--
	DE 19529348	C2	19971120		
	WO 9706190	A1	19970220	WO 1996-EP3203	19960719 <--
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 843690	A1	19980527	EP 1996-926375	19960719 <--
	EP 843690	B1	20020220		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	CN 1197462	A	19981028	CN 1996-197170	19960719 <--
	CN 1091775	B	20021002		
	JP 11511183	T	19990928	JP 1996-528674	19960719 <--
	JP 3941880	B2	20070704		
	AT 213502	T	20020315	AT 1996-926375	19960719 <--
	TW 434265	B	20010516	TW 1996-85109126	19960726 <--
	US 6060557	A	20000509	US 1998-497	19980423 <--
	US 6403700	B1	20020611	US 2000-532085	20000321 <--
PRAI	DE 1995-19529348	A	19950809	<--	
	WO 1996-EP3203	W	19960719	<--	
	US 1998-497	A1	19980423	<--	
AB	The title <b>absorbents</b> , with good liquid uptake under compression and good rewet properties, are powdered polymers prepared from unsatd. acids (≥50 mol% converted to salts) 55-99.9, comonomers 0-40, crosslinking agents 0.01-5, and H2O-soluble polymers 0-30%, and have retention for 0.9% NaCl (R) ≥25 g/g, fluid uptake under pressure of 50 g/cm2 (Up) ≥25 g/g, swelling pressure (1 g, 20 min) (Ps) ≥700 g, and rewet ≤2.0 g. Redox polymerization of 80 g acrylic acid and 0.24 g trimethylolpropane polyethylene glycol ether (1:3) triacrylate, preneutralized with 4.4 g 50% NaOH, gave a gel which was comminuted, mixed with 57.8 g 50% NaOH (overall degree of neutralization 70%), dried to H2O content <10%, ground to particle size 180-850 μm, and the granules were wet with 0.5% ethylene carbonate (dry basis). This polymer had R 34 g/g, Up 36 g.g, Ps 850 g, and rewet 0.5 g.				
IT	139100-03-1, Acrylic acid-trimethylolpropane copolymer sodium salt 154457-96-2				
	RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)				
	(polymeric absorbents for water and aqueous fluids)				
RN	139100-03-1 HCAPLUS				
CN	2-Propenoic acid, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, sodium salt (9CI) (CA INDEX NAME)				

CM 1

CRN 137667-43-7

CMF (C6 H14 O3 . C3 H4 O2)x

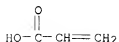
CCI PMS

CM 2

CRN 79-10-7

CMF C3 H4 O2

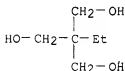




CM 3

CRN 77-99-6

CMF C6 H14 O3



RN 154457-96-2 HCAPLUS

CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

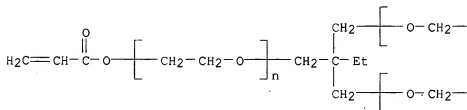
CM 1

CRN 28961-43-5

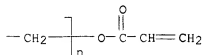
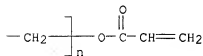
CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C15 H20 O6

CCI PMS

PAGE 1-A

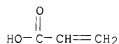


PAGE 1-B



CM 2

CRN 79-10-7  
CMF C3 H4 O2



L314 ANSWER 46 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:166277 HCAPLUS

DN 126:238778

TI Allyl endcapped polyethylene oxide crosslinkers and their use in **superabsorbents**

AU Smith, P. B.; Cutie, S. S.; Henton, D. E.; Powell, C.; Kosman, J.; Howell, B. A.

CS Analytical Sciences, Dow Chemical Co., Midland, MI, 48667, USA

SO Journal of Polymer Science, Part A: Polymer Chemistry (1997), 35(4), 799-806

CODEN: JPACEC; ISSN: 0887-624X

PB Wiley

DT Journal

LA English

AB Several new crosslinkers have been synthesized for evaluation in **superabsorbent** polymers. These crosslinkers are allyl endcapped polyethylene glycols (PEG) of 200, 600, and 3400 mol. weight. A branched polyethylene oxide of 600 mol. weight, initiated with glycerin, was also synthesized as of trifunctional crosslinker. The allyl functionality was chosen because it is less reactive during radical polymerization than acrylate crosslinkers, an attribute that was necessary to achieve a more uniform gel network. A synthesis route was devised to make the crosslinkers in high purity and yield. The purity of the crosslinkers was determined by <sup>13</sup>C NMR, liquid chromatog., and size exclusion chromatog. Gels that were produced with the allyl crosslinkers gave excellent soluble polymer levels and swelling characteristics. The mechanism of incorporation of the allyl functionality was determined to be exclusively vinyl polymerization rather than through hydrogen abstraction. This was determined using NMR spectroscopy, monitoring the polymerization of a model system consisting of acrylic acid and allyl acetate.

IT 188437-48-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(allyl endcapped polyethylene oxide crosslinkers and their use in **superabsorbents**)

RN 188437-48-1 HCAPLUS

CN 2-Propenoic acid, polymer with α,α',α''-1,2,3-propanetriyltris[ω-(2-propenyloxy)poly(oxy-1,2-ethanediyl)], sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 188437-47-0

CMF (C3 H4 O2 . (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C12 H20 O3)x

CCI PMS

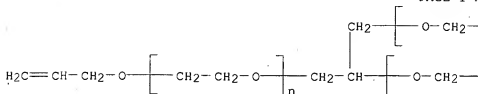
CM 2

CRN 121136-33-2

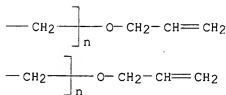
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C12 H20 O3

CCI PMS

PAGE 1-A



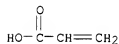
PAGE 1-B



CM 3

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 47 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:119082 HCAPLUS

DN 126:132438

TI Printable swelling pastes for use in cable insulation and in fleeces

IN Houben, Jochen; Krug, Winfried

PA Chemische Fabrik Stockhausen GmbH, Germany

SO Ger. Offen., 6 pp.

CODEN: GWXXBX

DT Patent

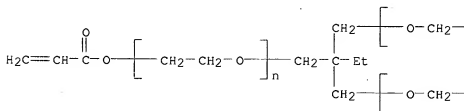
LA German

FAN.CNT 1

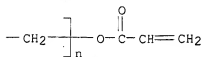
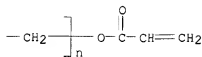
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19521431	A1	19961219	DE 1995-19521431	19950616 <--
	CA 2221562	A1	19970103	CA 1996-2221562	19960610 <--
	CA 2221562	C	20021119		
	WO 9700280	A1	19970103	WO 1996-EP2503	19960610 <--
	W: CA, CN, JP, PL, RU, SI, TR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 832152	A1	19980401	EP 1996-921958	19960610 <--
	EP 832152	B1	20020410		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
	CN 1192761	A	19980909	CN 1996-196169	19960610 <--

CN 1071765 B 20010926  
 JP 11514018 T 19991130 JP 1996-502610 19960610 <--  
 AT 215974 T 20020415 AT 1996-921958 19960610 <--  
 RU 2192437 C2 20021110 RU 1998-101106 19960610 <--  
 ES 2175103 T3 20021116 ES 1996-921958 19960610 <--  
 PL 188454 B1 20050228 PL 1996-324006 19960610 <--  
 US 6043311 A 20000328 US 1997-973468 19971216 <--  
 PRAI DE 1995-19521431 A 19950616 <--  
 WO 1996-EP2503 W 19960610 <--  
 AB The title pastes, which can be printed on all sorts of surfaces, contain super-absorbent, lightly-crosslinked (meth)acrylic acid polymers, their salts, and/or their acrylamide copolymers. A copolymer prepared from acrylic acid 2034, 50% NaOH 79.2, and trimethylolpropane triacrylate 16.2 g in the presence of mercaptoethanol and having Brookfield viscosity 22.7 and 16.2 Pa-s at 1 and 10 rpm, resp., was mixed with thickeners and 3% ethylene glycol diglycidyl ether, printed (120 g/m<sup>2</sup>) on a polyester fabric, and dried at 190° for 3 min to give a fabric with swelling height 10 and 11 mm after 1 and 10 min, resp.  
 IT 186341-24-2  
 RL: TEM (Technical or engineered material use); USES (Uses) (superabsorbent; printable swelling pastes for use in cable insulation and in fleeces)  
 RN 186341-24-2 HCAPLUS  
 CN 2-Propenoic acid, polymer with  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediy) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), and  $\alpha$ -(oxiranylmethyl)- $\omega$ -(oxiranylmethoxy)poly(oxy-1,2-ethanediy), sodium salt (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 186341-23-1  
 CMF (C3 H4 O2 . (C2 H4 O)n C6 H10 O3 . (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6)x  
 CCI PMS  
 CM 2  
 CRN 28961-43-5  
 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6  
 CCI PMS

PAGE 1-A



PAGE 1-B

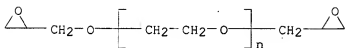


CM 3

CRN 26403-72-5

CMF (C2 H4 O)n C6 H10 O3

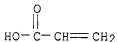
CCI PMS



CM 4

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 48 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:672723 HCAPLUS

DN 125:309128

TI Blood-absorbent resin composition and absorbent articles

IN Kajikawa, Katsuhiko; Hatsuda, Takumi; Nakamura, Masatoshi

PA Nippon Shokubai Co., Ltd., Japan

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent

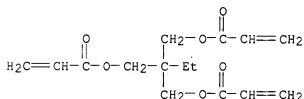
LA Japanese

FAN.CNT 1

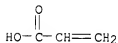
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9628515	A1	19960919	WO 1996-JP576	19960308 <--
	W: CN, JP, KR, US				
	RN: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 759460	A1	19970226	EP 1996-905039	19960308 <--
	EP 759460	B1	20040922		
	R: DE, FR, GB, IT				
	CN 1154128	A	19970709	CN 1996-190472	19960308 <--

jan delaval - 25 october 2007

CN 1087328 B 20020710  
 JP 3375136 B2 20030210 JP 1996-527456 19960308 <--  
 US 5807361 A 19980915 US 1996-732468 19961029 <--  
 PRAI JP 1995-49972 A 19950309 <--  
 WO 1996-JP576 W 19960308 <--  
 AB A blood-**absorbent** resin composition having a blood area ratio with respect to sheep blood at 150 g/m2 of at least 30 % and **absorbent** articles comprising the same are claimed. Owing to its excellent blood-**absorption** properties, the resin composition is highly useful in sanitary napkins, tampons, blood-**absorbent medical** articles, wound protective materials, wound healing materials, surgical waste water treatment, etc.  
 IT 130425-88-6P 183055-83-6P  
 RL: DEV (Device component use); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (blood-**absorbent** copolymers and their use in manufacturing sanitary napkins, tampons, and other **absorbent** articles)  
 RN 130425-88-6 HCAPLUS  
 CN 2-Propenoic acid, polymer with 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl)-1,3-propanediyl di-2-propenoate, 1,2,3-propanetriol and sodium 2-propenoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 15625-89-5  
 CMF C15 H20 O6

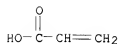


CM 2  
 CRN 7446-81-3  
 CMF C3.H4 O2 . Na



● Na

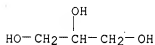
CM 3  
 CRN 79-10-7  
 CMF C3 H4 O2



CM 4

CRN 56-81-5  
CMF C3 H8 O3

CMF C3 H8 O3



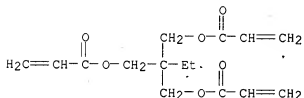
RN 183055-83-6 HCAPLUS

CN 2-Propenoic acid, polymer with 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 1,2-propanediol, 2-propanol and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 15625-89-5

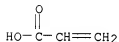
CMF C15 H20 O6



CM 2

CRN 7446-81-3

CMF C3 H4 O2 . Na

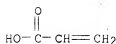


● Na<sup>+</sup>

CM 3

CRN 79-10-7

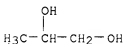
CMF C3 H4 O2



CM 4

 CRN 67-63-0  
 CMF C3 H8 O


CM 5

 CRN 57-55-6  
 CMF C3 H8 O2


L314 ANSWER 49 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:531424 HCAPLUS

DN 125:223093

 TI pH-Induced structure change of poly(vinyl alcohol) **hydrogel**  
 crosslinked with poly(acrylic acid)

 AU Hirai, Toshihiro; Okinaka, Toshihiro; Amemiya, Yoshiyuki; Kobayashi,  
 Katsumi; Hirai, Mitsuhiro; Hayashi, Sadao

CS Faculty Textile Science Technology, Shinshu University, Ueda, 386, Japan

SO Angewandte Makromolekulare Chemie (1996), 240, 213-219

CODEN: ANMCBO; ISSN: 0003-3146

PB Huethig &amp; Wepf

DT Journal

LA English

 AB The structure of the **hydrogel** of poly(vinyl alc.) (PVA) and  
 poly(acrylic acid) (PAA) was investigated by small angle x-ray scattering  
 (SAXS) of synchrotron radiation. A phys. crosslinked blend gel, which was  
 prepared by repetitive freezing and thawing of an aqueous solution of PVA and

 PAA,  
 could be chemical crosslinked by esterification of PVA with PAA even in the  
**hydrogel** state. The chemical crosslinking induced the destruction of  
 phys. crosslinks into a folded structure, indicating that the chemical  
 crosslinking proceeds at the sites around the phys. crosslinks that  
 contain PVA and PAA in much higher concentration than other portion of the gel.  
 The pH-induced structure changes of the PVA **hydrogels**, chemical  
 crosslinked with PAA were investigated by SAXS on the samples of various  
 chemical crosslinking time. The gels were shrunk at pH 4 and swollen at pH  
 8. The SAXS showed that the Porod slope changed with chemical crosslinking  
 time from -3.5 to -2.9 at pH 4, and from -2.9 to -2.4 at pH 8. The  
 results suggest that a folded structure as a structural domain, which is

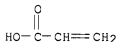


characterized by a fractally rough interface, tends to change into the structure that corresponds to percolation cluster, particularly at pH 8. The gels immersed in pH 8 showed a remarkable structure change accompanying swelling. The results revealed that a conformational change of PAA chains, induced by the pH change, can be explained by the presence of a structural domain in the gel network, where both PVA chains and PAA chains get entangled and partially form a interpenetrating polymer network.

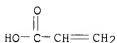
IT 26299-60-5P, Acrylic acid-vinyl alcohol copolymer  
 79062-80-9P, 2-Propenoic acid, homopolymer, compound with ethenol homopolymer  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (pH-induced structure change of poly(vinyl alc.) **hydrogel**  
 crosslinked with poly(acrylic acid))  
 RN 26299-60-5 HCAPLUS  
 CN 2-Propenoic acid, polymer with ethenol (CA INDEX NAME)  
 CM 1  
 CRN 557-75-5  
 CMF C2 H4 O



CM 2  
 CRN 79-10-7  
 CMF C3 H4 O2



RN 79062-80-9 HCAPLUS  
 CN 2-Propenoic acid, homopolymer, compd. with ethenol homopolymer (CA INDEX NAME)  
 CM 1  
 CRN 9003-01-4  
 CMF (C3 H4 O2)x  
 CCI PMS  
 CM 2  
 CRN 79-10-7  
 CMF C3 H4 O2



CM 3

 CRN 9002-89-5  
 CMF (C2 H4 O)x  
 CCI PMS

CM 4

 CRN 557-75-5  
 CMF C2 H4 O

 $H_2C=CH-OH$ 

L314 ANSWER 50 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:488834 HCAPLUS

DN 125:116841

 TI Water-**absorbent** resin, process for production thereof, and water-**absorbent** resin composition

IN Ishizaki, Kunihiro; Obara, Hisanobu; Hadara, Nobuyuki; Motono, Yoshihiro; Miyake, Koji

PA Nippon Shokubai Co., Ltd., Japan

SO PCT Int. Appl., 98 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9617884	A1	19960613	WO 1995-JP2523	19951208 <--
	W: CN, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 744435	A1	19961127	EP 1995-939403	19951208 <--
	EP 744435	B1	20030903		
	R: DE, FR, GB				
	CN 1140458	A	19970115	CN 1995-191547	19951208 <--
	CN 1071356	B	20010919		
	EP 1364985	A1	20031126	EP 2003-77132	19951208 <--
	R: DE, FR, GB				
	US 5985944	A	19991116	US 1996-687377	19960802 <--
	US 6251960	B1	20010626	US 1999-343460	19990630 <--
PRAI	JP 1994-305185	A	19941208	<--	
	JP 1995-65427	A	19950324	<--	
	EP 1995-939403	A3	19951208	<--	
	WO 1995-JP2523	W	19951208	<--	
	US 1996-687377	A3	19960802	<--	

OS MARPAT 125:116841

 AB A water-**absorbent** resin, with good water **absorption** and especially useful for preparation of compns. for sanitary materials and **medical** goods, is produced by dispersing a solid blowing agent (average diameter 1-100  $\mu$ m) of a salt of acrylic acid and azo compound

containing amino group in an aqueous solution containing an unsatd. monomer and a crosslinking

 agent and polymerizing the monomers. Thus, a porous water-**absorbent** resin having average pore diameter 60  $\mu$ m, water **absorbability** 11 g/g and water retention 29 g/g was prepared by stirring 4.3 parts 10% aqueous solution

of 2,2'-azobis(2-methylpropionamidine) dihydrochloride in a mixture of acrylic acid 38.6, 37% aqueous Na acrylate 409, trimethylolpropane triacrylate 0.48, and H<sub>2</sub>O 53 parts in the presence of N for 10 min [to produce 2,2'-azobis(2-methylpropionamidine) diacrylate (average diameter 9 μm) in the mixture], adding Na persulfate and L-ascorbic acid, crosslinking and drying.

IT 179824-67-0P 179824-69-2P 179824-71-6P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(porous; water-**absorbent** resin, process for production thereof, and water-**absorbent** resin composition)

RN 179824-67-0 HCAPLUS

CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[o xirane], 2-ethyl-2-[[{(1-oxo-2-propenyl)oxylmethyl]-1,3-propanediyl di-2-propenoate and 1,2,3-propanetriol, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 179824-66-9

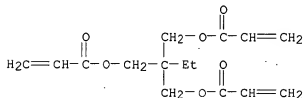
CMF (C15 H20 O6 . C8 H14 O4 . C3 H8 O3 . C3 H4 O2)x

CCI PMS

CM 2

CRN 15625-89-5

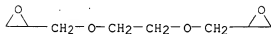
CMF C15 H20 O6



CM 3

CRN 2224-15-9

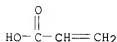
CMF C8 H14 O4



CM 4

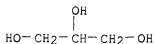
CRN 79-10-7

CMF C3 H4 O2



CM 5

CRN 56-81-5  
CMF C3 H8 O3



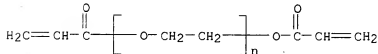
RN 179824-69-2 HCAPLUS  
CN 2-Propenoic acid, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1,2,3-propanetriol, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 179824-68-1  
CMF {C3 H8 O3 . C3 H4 O2 . (C2 H4 O)n C6 H6 O3}x  
CCI PMS

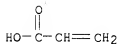
CM 2

CRN 26570-48-9  
CMF (C2 H4 O)n C6 H6 O3  
CCI PMS



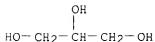
CM 3

CRN 79-10-7  
CMF C3 H4 O2



CM 4

CRN 56-81-5  
CMF C3 H8 O3



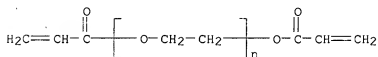
RN 179824-71-6 HCAPLUS  
 CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[o  
 xirane],  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-  
 propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1,2,3-propanetriol, sodium salt  
 (9CI) (CA INDEX NAME)

CM 1

CRN 179824-70-5  
 CMF (C8 H14 O4 . C3 H8 O3 . C3 H4 O2 . (C2 H4 O)n C6 H6 O3)x  
 CCI PMS

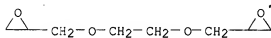
CM 2

CRN 26570-48-9  
 CMF (C2 H4 O)n C6 H6 O3  
 CCI PMS



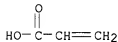
CM 3

CRN 2224-15-9  
 CMF C8 H14 O4



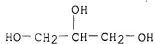
CM 4

CRN 79-10-7  
 CMF C3 H4 O2



CM 5

CRN 56-81-5  
 CMF C3 H8 O3



L314 ANSWER 51 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:300719 HCAPLUS

DN 120:300719

TI Laminated plastic films with improved water-vapor-barrier property for packaging moisture-sensitive products

IN Depuydt, Andre

PA Ucb Helio Folien GmbH, Germany

SO Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 582968	A1	19940216	EP 1993-112542	19930805 <--
	EP 582968	B1	19980128		
	R: BE, DE, ES, FR, GB, IT, NL				
	ES 2111097	T3	19980301	ES 1993-112542	19930805 <--
PRAI	DE 1992-4226621	A	19920812	<--	

AB Laminated plastic films with the title property for the title use comprise a moisture-**absorbing** adhesive layer, a plastic film with moisture-vapor permeability 2-10 g/m<sup>2</sup> 24 h at 38° and 90% relative humidity facing the products, and a plastic film with moisture-vapor permeability 5-20 g/m<sup>2</sup> 24 h at 38° and 90% relative humidity facing away from the products. A typical laminated film comprised a 12-μm biaxially stretched polypropylene (I) film bonded to a coextruded, biaxially stretched 35-μm I film having sealability on both sides using a 5-g/m<sup>2</sup> adhesive layer prepared from a 35% solids MEK solution containing a OH-terminated polyether-polyurethane 5, NCO-terminated polyether-polyurethane 2.4, and moisture-**absorbing** acrylic acid-vinyl alc. copolymer Na salt 4 parts.

IT 27599-56-0, Acrylic acid-vinyl alcohol polymer sodium salt

RL: USES (Uses)

(adhesives containing, moisture-**absorbing**, for laminating plastic films in manufacture of water-vapor-barrier films for packaging moisture-sensitive products)

RN 27599-56-0 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol, sodium salt (CA INDEX NAME)

CM 1

CRN 26299-60-5

CMF (C3 H4 O2 . C2 H4 O)x

CCI PMS

CM 2

CRN 557-75-5

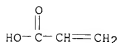
CMF C2 H4 O

$$\text{H}_2\text{C}=\text{CH}-\text{OH}$$

CM 3

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 52 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:246662 HCAPLUS

DN 120:246662

TI Carboxy-containing crosslinked hydrophilic resins and method of preparation

IN Gartner, Herbert; Trijasson, Philippe; Petri, Roswitha

PA Dow Chemical Co., USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9321237	A1	19931028	WO 1993-US3489	19930414 <--
	W: AU, CA, FI, JP, KR, NO				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9341030	A	19931118	AU 1993-41030	19930414 <--
	EP 636149	A1	19950201	EP 1993-910596	19930414 <--
	EP 636149	B1	19960515		
	EP 636149	B2	20031105		
	R: DE, FR, GB				
	JP 07505913	T	19950629	JP 1993-518576	19930414 <--
	JP 3474567	B2	20031208		
	US 5506324	A	19960409	US 1994-251826	19940531 <--
PRAI	GB 1992-8449	A	19920416	<--	
	US 1993-45010	B3	19930408	<--	
	WO 1993-US3489	A	19930414	<--	

AB The title resins, showing high **absorption** capacity and useful as **absorbents** for disposable diapers, sanitary napkins, etc., are prepared by copolymerizing an unsaturated carboxylic acid with a crosslinking monomer having  $\geq 2$  polyoxyalkylene groups and  $\geq 2$  alkenyloxy groups. A resin was prepared by redox catalyst-initiated copolymerization of acrylic acid and the triacrylate of ethoxylated trimethylolpropane.

IT 154457-96-2P

RL: PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

 (preparation of crosslinked, hydrophilic, as **absorbents** for liqs.)

RN 154457-96-2 HCAPLUS

 CN 2-Propenoic acid, polymer with  $\alpha$ -hydroxy- $\omega$ -(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

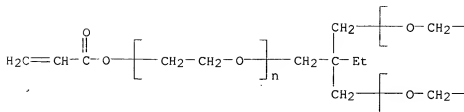
CM 1

CRN 28961-43-5

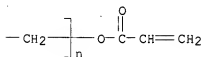
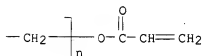
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6

CCI PMS

PAGE 1-A



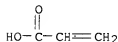
PAGE 1-B



CM 2

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 53 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1993:170265 HCAPLUS

DN 118:170265

 TI Expanding-contracting **hydrogel** composite and its preparation

IN Graiver, Daniel; Gen, Shokyu; Ikada, Yoshito

PA Dow Corning Corp., USA; Bio-Materials Universe Co.

SO U.S., 6 pp.

CODEN: USXXAM

 DT **Patent**

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5171775	A	19921215	US 1989-316611	19890519 <--
PRAI	US 1989-316611		19890519	<--	

AB A swelling-shrinking **hydrogel** has a crosslinked polyelectrolyte [from alkali metal salts of crosslinked poly[(meth)acrylic acid] uniformly dispersed in poly(vinyl alc.) (I) (weight ratio  $\geq 1:10$ ); volume is increased by **absorption** of H<sub>2</sub>O, and the crosslinked polyelectrolyte swells in H<sub>2</sub>O but does not dissolve at 25°. Thus, a composite was prepared from I dissolved in Me<sub>2</sub>SO, with stirring in of XUS



40346.00L [crosslinked poly(acrylic acid) partial Na salt]; cooling in a freezer and then a refrigerator at 5° to gel, extracting Me2SO with MeOH, and immersing the extracted gels in H2O gave 3000% volume expansion in 24 h.

IT 126213-57-8

RL: USES (Uses)

(poly(vinyl alc.) containing, **hydrogels**, water-absorbent

RN 126213-57-8 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol, sodium salt, block (9CI) (CA INDEX NAME)

CM 1

CRN 106608-38-2

CMF (C3 H4 O2 . C2 H4 O)x

CCI FMS

CM 2

CRN 557-75-5

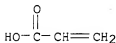
CMF C2 H4 O

H<sub>2</sub>C=CH-OH

CM 3

CRN 79-10-7

CMF C3 H4 O2



L314 ANSWER 54 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:613836 HCAPLUS

DN 117:213836

TI Polymeric water **absorbents** and their manufacture

IN Karasawa, Yoshimitsu; Yamauchi, Yuji; Nagao, Susumu

PA Nippon Kayaku Co., Ltd., Japan; Idemitsu Petrochemical Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT **Patent**

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04120176	A	19920421	JP 1990-240990	19900911 <--
	JP 2862357	B2	19990303		
PRAI	JP 1990-240990		19900911 <--		

AB **Absorbents**, useful for sanitary napkins and diapers, comprise carboxy-containing water-**absorbing** polymers crosslinked with hydroxy-containing monoepoxides at 100-250° and water-insol. inorg. compds. Thus, Na acrylate 75, acrylic acid 24.7, and

methylenebisacrylamide 0.12 part were polymerized in an aqueous medium in the presence of (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub> and NaHSO<sub>3</sub> at 30-100°, dried at 170°, and screened to give powdered copolymer passing 18 mesh, 40 parts of which was mixed with 0.8 part Snowtex O and 4 parts MeOH, stirred with an aqueous solution of 0.24 part glycidol, and dried at 180° to give a water absorbent with gel strength 175 g/cm<sup>2</sup> capable of absorbing 57-fold 0.9% aqueous NaCl.

IT 144249-30-9P

RL: PREP (Preparation)

(preparation of, as water absorbents containing inorg. fillers)

RN 144249-30-9 HCAPLUS

CN 2-Propenoic acid, polymer with 2(or 3)-(oxiranylmethoxy)-1,?-propanediol, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 144249-29-6

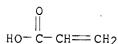
CMF (C6 H12 O4 . C3 H4 O2)x

CCI PMS

CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

CRN 32555-29-6

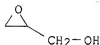
CMF C6 H12 O4

CCI IDS

CM 4

CRN 556-52-5

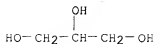
CMF C3 H6 O2



CM 5

CRN 56-81-5

CMF C3 H8 O3



L314 ANSWER 55 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:91478 HCAPLUS

DN 116:91478

 TI Water-**absorbent** resins for manufacture of **absorbent** articles

IN Ball, Jeffrey Maurice

PA Dow Chemical Co., UK

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9118042	A1	19911128	WO 1991-GB780	19910517 <--
	W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, PL, RO, SD, SE, SU, US				
	RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG				
	CA 2082623	A1	19911120	CA 1991-2082623	19910517 <--
	AU 9178630	A	19911210	AU 1991-78630	19910517 <--
	EP 530231	A1	19930310	EP 1991-909158	19910517 <--
	R: CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
	JP 05507511	T	19931028	JP 1991-508962	19910517 <--
PRAI	GB 1990-11250	A	19900519	<--	
	GB 1991-2143	A	19910131	<--	
	WO 1991-GB780	A	19910517	<--	
AB	A carboxyl-containing water- <b>absorbent</b> resin is incorporated with a hydrophilic thermoplastic polymer to produce water- <b>absorbent</b> resin particles useful for manufacture of personal care products to <b>absorb</b> body fluids. Thus, water- <b>absorbent</b> resin particles based on partially neutralized polyacrylic acid crosslinked with trimethylol propane and PVP were blended and tested for its <b>absorption</b> capacity.				
IT	139100-03-1				
	RL: BIOL (Biological study) (blends with PVP, in manufacture of water- <b>absorbent</b> articles)				
RN	139100-03-1 HCAPLUS				
CN	2-Propenoic acid, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, sodium salt (9CI) (CA INDEX NAME)				

CM 1

CRN 137667-43-7

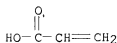
CMF (C6 H14 O3 . C3 H4 O2)x

CCI PMS

CM 2

CRN 79-10-7

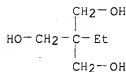
CMF C3 H4 O2



CM 3

CRN 77-99-6

CMF C6 H14 O3



L314 ANSWER 56 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:634290 HCAPLUS

DN 115:234290

 TI Manufacture of artificial snow using **superabsorbent** polymers

IN Miura, Yuichiro; Hirano, Kazuo; Nate, Takayuki; Kambayashi, Taiji; Ohtsuka, Masahisa; Nagai, Toshitake

PA Miura Dolphins Co., Ltd., Japan; Tonen Corp.; Osaka Organic Chemical Industry Co., Ltd.; Tonen Chemical Corp.; Sanyo Electric Co., Ltd.

SO Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 440257	A1	19910807	EP 1991-101368	19910201 <--
	R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE				
	JP 03229762	A	19911011	JP 1990-24069	19900202 <--
	JP 04043274	A	19920213	JP 1990-150729	19900609 <--
	JP 04043275	A	19920213	JP 1990-150730	19900609 <--
	JP 04098068	A	19920330	JP 1990-214697	19900814 <--
	JP 3044760	B2	20000522		
	FI 9100490	A	19910803	FI 1991-490	19910201 <--
	FI 98825	B	19970515		
	FI 98825	C	19970825		
	NO 177907	B	19950904	NO 1991-402	19910201 <--
	NO 177907	C	19951213		
	AU 9170261	A	19910808	AU 1991-70261	19910204 <--
	AU 648286	B2	19940421		
	BR 9100534	A	19911029	BR 1991-534	19910204 <--
	CA 2036667	A1	19911210	CA 1991-2036667	19910219 <--
	CA 2036667	C	20000523		
	AU 9453980	A	19940324	AU 1994-53980	19940127 <--
	AU 660121	B2	19950608		
PRAI	JP 1990-24069	A	19900202	<--	
	JP 1990-150729	A	19900609	<--	
	JP 1990-150730	A	19900609	<--	
	JP 1990-214697	A	19900814	<--	

AB Artificial snow in granule or aggregate form, having average particle size 0.5-5-mm, is manufactured by **absorbing** H<sub>2</sub>O into a **superabsorbent** polymer in granule form, and which can retain its granule form after **absorption** of H<sub>2</sub>O, and freezing the water-swollen **superabsorbent** polymer by mixing with a coolant. Thus, PQ Polymer-BL-100 [poly(acrylic acid salt)-type **superabsorbent** polymer] **absorbed** H<sub>2</sub>O 50 times its weight

and then frozen at -30° for 1-2 h to give artificial snow in granule form having d. 0.5 g/cm3 and strength 10 kg/cm2.

IT 26299-60-5D, Acrylic acid-vinyl alcohol copolymer, salts  
 RL: USES (Uses)  
 (superabsorbents, in snow substituent manufacture)

RN 26299-60-5 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol (CA INDEX NAME)

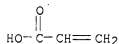
CM 1

CRN 557-75-5  
 CMF C2 H4 O



CM 2

CRN 79-10-7  
 CMF C3 H4 O2



L314 ANSWER 57 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:192642 HCAPLUS

DN 114:192642

TI Block copolymers for manufacture of medical goods

IN Kawashima, Toru; Saito, Noboru; Kasai, Masaaki

PA Terumo Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02138342	A	19900528	JP 1988-57940	19880311 <--
PRAI	JP 1987-58662	A1	19870313	<--	

AB A-B-A block copolymer (A = hydrophilic ethylene glycol polymer, B = vinyl chloride polymer) is prepared which is biocompatible and suitable for manufacturing medical goods. Thus, vinyl chloride-polyethylene glycol block copolymer was prepared for use in manufacturing a catheter.

IT 131177-42-9P

RL: PREP (Preparation)  
 (preparation of, for medical goods)

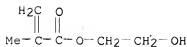
RN 131177-42-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with chloroethene, block (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

CMF C6 H10 O3



CM 2

CRN 75-01-4

CMF C2 H3 Cl



L314 ANSWER 58 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:186982 HCAPLUS

DN 114:186982

 TI Water-**absorbing** polymer gels with improved heat resistance

IN Kato, Koji; Fujitani, Kensho; Tokimura, Kenji

PA Mitsubishi Petrochemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

 DT **Patent**

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02292341	A	19901203	JP 1989-113161	19890502 <--
PRAI	JP 1989-113161		19890502	<--	
AB	Title gel compns. showing good aging resistance under humid condition are prepared by dispersing MgO and/or Mg(OH)2 fine powder in an aqueous dispersion medium and applying the resulting dispersion onto a high-water- <b>absorption</b> resin. Thus, adding 0.3 g MgO powder (average particle diameter $\leq 2 \mu\text{m}$ ) to 100 g H2O under stirring and then adding 1 g Diawet [partially neutralized and crosslinked poly(Na acrylate)] gave a gel with better heat resistance than a similar gel prepared without MgO.				
IT	26299-60-5, Acrylic acid-vinyl alcohol copolymer				
	RL: USES (Uses)				
	(gels, containing magnesium oxide or magnesium hydroxide, for improved heat resistance)				
RN	26299-60-5 HCAPLUS				
CN	2-Propenoic acid, polymer with ethenol (CA INDEX NAME)				

CM -1

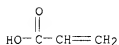
CRN 557-75-5

CMF C2 H4 O



CM 2

CRN 79-10-7  
CMF C3 H4 O2



L314 ANSWER 59 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:596293 HCAPLUS

DN 111:196293

TI Expanding-contracting poly(vinyl alcohol) **hydrogel** composites and their preparation

IN Graiver, Daniel; Gen, Shokyu; Ikada, Yoshito

PA Dow Corning Corp., USA; Biomaterials Universe, Inc.

SO Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

DT **Patent**

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 310326	A2	19890405	EP 1988-308925	19880927 <--
	EP 310326	A3	19900530		
	EP 310326	B1	19930915		
	R: DE, FR, GB, IT				
	JP 01096239	A	19890414	JP 1987-245909	19871001 <--
	CA 1300792	C	19920512	CA 1988-579153	19881003 <--
	JP 02123153	A	19900510	JP 1989-245382	19890922 <--
PRAI	JP 1987-245909	A	19871001	<--	
	EP 1988-308925	A	19880927	<--	

AB The title composites, exhibiting increased volume ratio with increased H2O **absorption**, are prepared by adding particles of a polyelectrolyte to a poly(vinyl alc.) (I) solution and cooling the mixture to cause gelation of I and dispersion of the polyelectrolyte as a heterogeneous phase in the gel. I with d.p. 1700 and degree of saponification 99.5 mol% (1 part) was dissolved

in 80:20 dimethyl sulfoxide-H2O mixture, mixed with 1 part NP 1020 [poly(Na acrylate), cooled to room temperature with stirring, and kept 24 h at -5° and 3 days at 5° to give an expanding-contracting **hydrogel** having volume in H2O/volume in MeOH ratio 19.70, vs. 3.15 for a **hydrogel** without NP 1020.

IT 106608-38-2, Acrylic acid-vinyl alcohol block copolymer

RL: USES (Uses)

(composites with poly(vinyl alc.), **hydrogels**, expanding-contracting)

RN 106608-38-2 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol, block (9CI) (CA INDEX NAME)

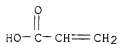
CM 1

CRN 557-75-5

CMF C2 H4 O



CM 2

 CRN 79-10-7  
 CMF C3 H4 O2


L314 ANSWER 60 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:34295 HCAPLUS

DN 106:34295

 TI Polymeric water **absorbents**

IN Hosoda, Kiichi; Sakimoto, Seichiro

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

 DT **Patent**

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61200102	A	19860904	JP 1985-41027	19850304 <--
PRAI	JP 1985-41027		19850304 <--		

AB **Absorbents** for water with good dimensional stability after **absorption**, useful for disposable diapers or sanitary napkins, are prepared by inverse-phase suspension polymerization of (meth)acrylic acid and/or

alkali metal (meth)acrylates in aliphatic hydrocarbons containing oil-soluble surfactants at 0-20°. Thus, stirring acrylic acid 324.3., water 255.7, 30% NaOH 420, methylenebis(acrylamide) 0.35, heptane 1000, and sorbitan monostearate 5 g with 10 mL 28.8% Na2S2O3 and 10 mL 5.4% Na2S2O8 for 30 min at 0-20°, 15 min at 20-40°, 15 min at 40-62°, and 60 min at 55-62° gave 380 g granular polymer (d. 0.46, 30-100 mesh) with artificial urine **absorption** 38 and 42% in 1 and 10 min.

IT 82133-52-6

RL: USES (Uses)

(absorbents, for water, preparation of)

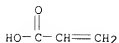
RN 82133-52-6 HCAPLUS

CN 2-Propenoic acid, sodium salt, polymer with 1,3(or 2,3)-bis(oxiranylmethoxy)propanol (9CI) (CA INDEX NAME)

CM 1

 CRN 7446-81-3  
 CMF C3 H4 O2 . Na





● Na

CM 2

CRN 27043-36-3

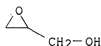
CMF C9 H16 O5

CCI IDS

CM 3

CRN 556-52-5

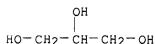
CMF C3 H6 O2



CM 4

CRN 56-81-5

CMF C3 H8 O3



L314 ANSWER 61 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1985:505635 HCAPLUS

DN 103:105635

TI Super **absorbent** Sumikagel

AU Motohashi, Tadakazu; Ogura, Masato; Watanabe, Masashi

CS Sumitomo Kagaku Kogyo Co. Ltd., Japan

SO Sumitomo Kagaku (Osaka, Japan) (1985), (1), 35-47

CODEN: SKAADZ; ISSN: 0387-1312

DT Journal

LA Japanese

AB Sumikagel S 50 [26299-60-5] and Sumikagel SP 520 **absorb** large quantities of H<sub>2</sub>O. The gels **absorb** water and swell in a short time, and retain the water. They have excellent water **absorbency** and water holding capacity. When these gels, swollen with water, are pressurized, they release small amts. of water and retain their excellent water-holding capacity. They are almost insol. in water or solvents and are very stable when exposed to heat or UV rays, with almost no toxicity. The gels are better in heat stability and sunshine weather stability than any other super **absorbent**, and can be

compounded with all types of rubbers and plastics to give giving water-  
**absorbing** materials which have durability for long periods.

IT 26299-60-5

RL: USES (Uses)

(**absorbents** for water, compounded with rubber and plastics,  
 properties of)

RN 26299-60-5 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol (CA INDEX NAME)

CM 1

CRN 557-75-5

CMF C2 H4 O

$H_2C=CH-OH$

CM 2

CRN 79-10-7

CMF C3 H4 O2

$HO-C(=O)-CH=CH_2$

L314 ANSWER 62 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1983:162017 HCAPLUS

DN 98:162017

TI Impregnated packaging films permeable on one side

PA Toppan Printing Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT **Patent**

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57174250	A	19821026	JP 1981-59387	19810420 <--
	JP 02021938	B	19900516		
PRAI	JP 1981-59387		19810420	<--	

AB The title films are used to seal packages while exposing their contents to vapors of water, alc., other solvents, fragrances, preservatives, antiseptic, etc. They comprise laminates of a vapor-permeable film, an impermeable film, and between them a layer of water-**absorbent** resin and optionally porous inorg. particles with a water-insol. polymeric binder, impregnated with aqueous organic acid and/or other hydrophilic solvents and volatile solutes. Thus, nonwoven pulp-polypropylene (I) fiber cloth was gravure coated with 7.2 g/m2 of a mixture of powdered crosslinked acrylic acid-vinyl alc. copolymer [26299-60-5] 10, finely flaked Ca silicate 25, and vinyl acetate-vinyl chloride copolymer binder in EtOAc 65 parts, to form an **absorbent** composite. A vinylidene chloride (II) polymer-coated I film was gravure coated on its I side with a polyurethane adhesive and pressed against the cloth side of the composite, and the resulting laminated film was aged 24 h at 19°, then

immersed 30 min in a solution of EtOH 40, malic acid [6915-15-7] 10, and water 60, and dried at 30° to obtain a laminated film containing 95 g/m2 absorbed solution. A section of the film was folded (porous side inward) and impulse sealed to enclose 200 g moist noodles (water content 32.0%, activity 0.93). After 10 days no signs of microbial growth were observed, but noodles sealed in II polymer-coated polyethylene film showed mold and yeast growth.

IT 26299-60-5

RL: USES (Uses)

 (partially crosslinked, **absorbent** powders, impregnated packaging films containing)

RN 26299-60-5 HCAPLUS

CN 2-Propenoic acid, polymer with ethenol (CA INDEX NAME)

CM 1

CRN 557-75-5

CMF C2 H4 O

$$\text{H}_2\text{C}=\text{CH}-\text{OH}$$

CM 2

CRN 79-10-7

CMF C3 H4 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{HO}-\text{C}-\text{CH}=\text{CH}_2 \end{array}$$

L314 ANSWER 63 OF 64 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1982:105413 HCAPLUS

DN 96:105413

 TI **Absorbent**

PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

 DT **Patent**

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 56091837	A	19810725	JP 1979-169368	19791227 <--
	JP 58025500	B	19830527		
	US 4286082	A	19810825	US 1980-137640	19800407 <--
PRAI	JP 1979-41125	A	19790406	<--	
	JP 1979-169368	A	19791227	<--	

AB The title **absorbents**, useful in preparing sanitary napkins and towels and showing high water retention under high pressure, are prepared by drying a gel-like water-containing polymer; the latter is prepared by polymerizing

>25% weight of a mixture of 100 parts acrylic acid salt composition (0-5% mol acrylic acid, 50-100% mol alkali metal acrylate, and 0.001-5 parts crosslinkable monomer in aqueous solution) in the presence of a water-soluble

or

dispersible surfactant. Thus, 4000 g aqueous solution containing 43% of 75:25 (molar) Na acrylate-acrylic acid mixture, 0.1 part (based on monomer) trimethylolpropane, and 2 parts (based on monomer) polyoxyethylene sec-alkyl ether were polymerized at 55-80° for 7 h under N in presence of 0.6 g (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub> and 0.2 g NaHSO<sub>3</sub> as catalyst to give a gel-like polymer, which was molded to string-like gels of 1.5-mm diameter, which were dried at 180° for 90 min and ground to give a powdered polymer [ 80847-45-6]. The swelling ratio of the polymer in 0.9% aqueous NaCl solution was 42 times after 3 min immersion, and the swollen polymer with not sticky. The pH of a 1% dispersion of the polymer in water was neutral.

IT 80847-45-6

RL: USES (Uses)

(absorbents, for sanitary napkins and towels)

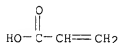
RN 80847-45-6 HCAPLUS

CN 2-Propenoic acid, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and sodium 2-propenoate (1:1) (CA INDEX NAME)

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na

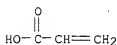


● Na

CM 2

CRN 79-10-7

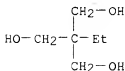
CMF C3 H4 O2



CM 3

CRN 77-99-6

CMF C6 H14 O3



AN 1975:175254 HCAPLUS  
 DN 82:175254  
 TI Composition for a **hydrogel** dilator article  
 IN Halpern, Benjamin D.; Akkapeddi, Murali K.  
 PA Polysciences, Inc.  
 SO U.S., 8 pp.  
 CODEN: USXXAM  
 DT **Patent**  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3867329	A	19750218	US 1972-283840	19720825 <--
PRAI	US 1972-283840	A	19720825	<--	

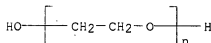
AB A **hydrogel** rod is formed by polymerizing an aqueous monomer solution, such as acrylamide or polyethylene glycol with crosslinking agents, and catalysts are inserted into a tube having a predecd. geometric contour. After removal from the tube and dialysis in distilled water the gel is dried to form a substantially moisture-free dilation rod of the desired shape. E.g., acrylamide monomer is used with methylenebisacrylamide or hexamethylenediacrylamide as cross-linking agents.

IT **55844-71-8 55845-11-9 55845-13-1**  
 RL: BIOL (Biological study)  
 (crosslinked, as **hydrogel** surgical dilator)

RN 55844-71-8 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, monoester with 1,2,3-propanetriol, polymèr with  $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3  
 CMF (C2 H4 O)n H2 O  
 CCI PMS



CM 2

CRN 50853-28-6  
 CMF C7 H12 O4  
 CCI IDS

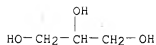
CM 3

CRN 79-41-4  
 CMF C4 H6 O2



CM 4

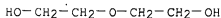
CRN 56-81-5  
CMF C3 H8 O3



RN 55845-11-9 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, monoester with 1,2,3-propanetriol, polymer with 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 111-46-6  
CMF C4 H10 O3



CM 2

CRN 50853-28-6  
CMF C7 H12 O4  
CCI IDS

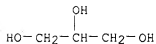
CM 3

CRN 79-41-4  
CMF C4 H6 O2



CM 4

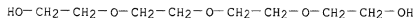
CRN 56-81-5  
CMF C3 H8 O3



RN 55845-13-1 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, monoester with 1,2,3-propanetriol, polymer with 2,2'-[oxybis(2,1-ethanedioxy)]bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 112-60-7  
CMF C8 H18 O5



CM 2

CRN 50853-28-6  
CMF C7 H12 O4  
CCI IDS

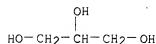
CM 3

CRN 79-41-4  
CMF C4 H6 O2



CM 4

CRN 56-81-5  
CMF C3 H8 O3



=> => d his

(FILE 'HOME' ENTERED AT 06:38:34 ON 25 OCT 2007)  
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 06:39:04 ON 25 OCT 2007

L1 6 S US20060235141/PN OR (US2005-551605# OR WO2004-EP3348 OR DE200  
E RIEGEL/AU  
E RIEGEL U/AU  
L2 82 S E4,E5  
E DANIEL/AU  
L3 5 S E3  
E DANIEL T/AU  
L4 335 S E3-E14,E26,E33-E42,E46-E49  
E HERMELING/AU  
L5 51 S E4,E5  
E ELLIOTT/AU  
E ELLIOTT M/AU  
L6 422 S E3-E18,E42-E52  
E SCHWALM/AU  
L7 1 S E3

L8 E SCHWALM R/AU  
195 S E3-E6  
E BASF/CO  
L9 30764 S BASF?/CO,PA,CS  
E E6+ALL  
L10 46431 S E2+RT OR E205-E212 OR E2-E212/PA,CS  
L11 6 S L1 AND L2-L10  
SEL RN

FILE 'REGISTRY' ENTERED AT 06:45:04 ON 25 OCT 2007

L12 46 S E1-E46  
L13 13 S L12 NOT PMS/CI  
L14 33 S L12 NOT L13  
L15 STR  
L16 50 S L15  
L17 SCR 1992 OR 2016 OR 2021 OR 2026 OR 1918 OR 1929 OR 2039 OR 205  
L18 50 S L15 NOT L17 SAM  
L19 40648 S L15 NOT L17 FUL  
SAV TEMP L19 BERN551A/A  
L20 SCR 1992 OR 2016 OR 2021 OR 2026 OR 2039 OR 2054 OR 2050 OR 204  
L21 50 S L15 NOT L20 SAM  
L22 58016 S L15 NOT L20 FUL  
L23 17368 S L22 NOT L19  
SAV TEMP L23 BERN551B/A  
SEL RN 26-33  
L24 35 S L12 AND L22  
SEL RN 26 28-35  
L25 26 S L24 NOT E55-E63  
L26 25 S L25 NOT C24H3809  
L27 8 S L14 NOT L26  
L28 STR  
L29 50 S L28 SAM SUB=L22  
L30 8279 S L28 FUL SUB=L22  
SAV TEMP L30 BERN551C/A  
STR L15  
L31 50 S L31 CSS SAM SUB=L30  
L32 2436 S L31 CSS FUL SUB=L30  
L33 5843 S L30 NOT L33  
SAV TEMP L34 BERN551D/A  
L35 STR  
L36 12 S L35 CSS SAM SUB=L34  
L37 221 S L35 CSS FUL SUB=L34  
L38 5622 S L34 NOT L37  
SAV TEMP L38 BERN551E/A  
L39 18 S L38 AND (C3 OR C4 OR C5 OR C6 OR C5-C6 OR C6-C6 OR C6-C6-C6 O  
L40 5604 S L38 NOT L39  
L41 98 S L40 AND (OCOC OR OCOC2 OR OCOC3 OR OCOC4)/ES  
L42 5506 S L40 NOT L41  
L43 5485 S L42 NOT 108-30-5/CRN  
L44 STR L31  
L45 24 S L44 CSS SAM SUB=L43  
L46 STR L44  
L47 2 S L46 CSS SAM SUB=L43  
L48 33 S L46 CSS FUL SUB=L43  
L49 5452 S L43 NOT L48  
SAV TEMP L49 BERN551F/A  
L50 4118 S L49 NOT (C2H4O OR C3H6O OR C4H8O OR (75-21-8 OR 25322-68-3 OR  
L51 1247 S L50 NOT PMS/CI  
L52 2871 S L50 NOT L51  
L53 2808 S L52 NOT C6H10O2



L54 16 S L53 AND C3H5CLO  
SEL RN 4-6 8 9 11-16  
L55 11 S L54 AND E64-E74  
L56 19 S L53 AND C3H6O2  
SEL RN 9 10 14 16 18  
L57 5 S E75-E79  
L58 2773 S L53 NOT L54,L56  
L59 486 S L58 AND (BR OR F OR I)/ELS  
L60 2287 S L58 NOT L59  
L61 53 S L60 AND CL/ELS  
L62 2234 S L60 NOT L61  
L63 STR  
L64 10 S L63 CSS SAM SUB=L62  
L65 179 S L63 CSS FUL SUB=L62  
L66 2055 S L62 NOT L65  
SAV TEMP L66 BERN551G/A  
STR  
L67 2 S L67 CSS SAM SUB=L66  
L68 27 S L67 CSS FUL SUB=L66  
L69 2028 S L66 NOT L69  
L70 SAV TEMP L70 BERN551H/A  
STR  
L71 1 S L71 CSS SAM SUB=L70  
L72 25 S L71 CSS FUL SUB=L70  
L73 20 S L73 NOT 108-31-6/CRN  
L74 18 S L74 NOT OC5/ES  
L75 17 S L75 NOT OC2/ES  
L76 SEL RN 7-9 15 17  
L77 5 S E80-E84  
L78 2003 S L70 NOT L73  
L79 1832 S L78 NOT (108-31-6 OR 2399-48-6 OR 765-12-8 OR 75993-98-5 OR 6  
SAV TEMP L79 BERN551I/A  
STR L63  
L80 3 S L80 CSS SAM SUB=L79  
L81 20 S L80 CSS FUL SUB=L79  
L82 1812 S L79 NOT L82  
L83 SAV TEMP L83 BERN551J/A  
STR  
L84 0 S L84 CSS SAM SUB=L83  
L85 14 S L84 CSS FUL SUB=L83  
L86 1798 S L83 NOT L86  
L87 SAV TEMP L87 BERN551K/A  
STR L84  
L88 50 S L88 CSS SAM SUB=L22  
L89 4003 S L88 CSS FUL SUB=L22  
L90 SAV TEMP L90 BERN551L/A  
L91 50 S (L31 OR L35 OR L46 OR L63 OR L67 OR L80) CSS SAM SUB=L90  
L92 2567 S (L31 OR L35 OR L46 OR L63 OR L67 OR L80) CSS FUL SUB=L90  
L93 1436 S L90 NOT L92  
SAV TEMP L93 BERN551M/A  
L94 1199 S L93 NOT (B OR F OR I)/ELS  
L95 413 S L94 AND CL/ELS  
L96 407 S L95 NOT "(C2H4O)NC4H6O2"  
L97 5 S L96 AND C9H16O4  
L98 402 S L96 NOT L97  
L99 390 S L98 NOT (108-31-6 OR 2399-48-6 OR 765-12-8 OR 75993-98-5 OR 6  
L100 389 S L99 NOT "(C3H6O)NC7H12O2"  
L101 379 S L100 NOT C5H8O2  
L102 378 S L101 NOT C28H34O13  
L103 314 S L102 NOT 108-05-4/CRN

L104 7 S L103 AND IDS/CI  
 L105 307 S L103 NOT L104  
 L106 3 S L105 NOT PMS/CI  
 L107 304 S L105 NOT L106  
 L108 43 S L107 AND OC2/ES  
 L109 14 S L108 AND (C2H2CL2 OR C10H16O4 OR C21H38O3 OR C4H4CL2 OR C9H12  
 L110 29 S L108 NOT L109  
 L111 261 S L107 NOT L108  
 L112 260 S L111 NOT C9H16O5  
 L113 229 S L112 NOT (C2H2CL2 OR C4H4CL2)  
 L114 227 S L113 NOT C6H10O4  
 L115 2 S L114 AND C17H20O8  
 L116 225 S L114 NOT L115  
 L117 11 S L116 AND C7H12O3  
 SEL RN 3 6 8 9  
 L118 7 S L117 NOT E85-E88  
 L119 214 S L116 NOT L117  
 L120 213 S L119 NOT C17H28O7  
 L121 4 S L120 AND "(C2H4O)NC5H8O2"  
 L122 209 S L120 NOT L121  
 L123 2 S L122 AND "(C2H4O)N(C2H4O)N(C2H4O)NC6H14O3"  
 L124 207 S L122 NOT L123  
 L125 206 S L124 NOT C18H26O11  
 L126 202 S L125 NOT (56-81-5 OR 77-99-6 OR 115-77-5 OR 21156-05-8)/CRN  
 L127 2 S L126 AND C7H12O4  
 L128 200 S L126 NOT L127  
 L129 199 S L128 NOT C8H14O5  
 L130 198 S L129 NOT "(C2H4O)NC20H36O6"  
 L131 197 S L130 NOT "(C2H4O)N(C2H4O)N(C2H4O)NC18H26O6"  
 L132 196 S L131 NOT C16H26O8  
 L133 124 S L132 AND 2/NC  
 L134 29 S L133 AND (C15H24O9 OR C14H18O7 OR C8H14O4 OR C15H20O6 OR C14H  
 L135 8 S L133 AND (C17H24O6 OR OC5/ES OR SN/ELS)  
 L136 88 S L133 NOT L134,L135  
 L137 72 S L132 NOT L133  
 L138 51 S L137 AND ("(C2H4O)NC17H30O6" OR "(C2H4O)NC8H10O3" OR C14H26O2  
 SEL RN 2-9 14 16-19 21 24-37 41-43  
 L139 31 S L138 AND E89-E119  
 L140 STR  
 L141 0 S L140 CSS SAM SUB=L87  
 L142 4 S L140 CSS FUL SUB=L87  
 L143 1794 S L87 NOT L142  
 L144 STR  
 L145 STR L144  
 L146 STR L144  
 L147 8 S L146 CSS SAM SUB=L143  
 L148 STR L145  
 L149 0 S L148 CSS SAM SUB=L143  
 L150 0 S L148 CSS FUL SUB=L143  
 L151 1788 S L143 NOT C4H6O3  
 L152 1680 S L151 NOT 126-58-9/CRN  
 L153 8 S L152 AND "(C3H4O2)N(C3H4O2)NC15H20O6"  
 L154 1672 S L152 NOT L153  
 L155 16 S L154 AND C5H8O2  
 L156 1656 S L154 NOT L155  
 L157 47 S L156 AND (OC3 OR OC4 OR OC5)/ES  
 L158 12 S L157 AND C9H14O3  
 L159 11 S L158 NOT OC5/ES  
 L160 1609 S L156 NOT L157  
 L161 6 S L160 AND (C12H26O5 OR C13H28O6)

L162 1603 S L160 NOT L161  
 L163 153 S L162 AND 56-81-5/CRN  
 L164 33 S L162 AND 77-99-6/CRN  
 L165 40 S L162 AND 115-77-5/CRN  
 L166 1 S L162 AND 21156-05-8/CRN  
 L167 39 S L165 NOT L164, L163  
 L168 36 S L167 AND ("(C3H4O2)NC3H4O2" OR C5H1004 OR C15H2409 OR C9H1205  
 L169 32 S L168 NOT (OC2OC2 OR OC2OC3)/ES  
 L170 25 S L169 NOT 4767-03-7/CRN  
 SEL RN 1 11 12 17  
 L171 4 S E120-E123  
 L172 21 S L170 NOT L171  
 L173 30 S L164 NOT L165, L163  
 L174 22 S L173 NOT 4767-03-7/CRN  
 L175 19 S L174 NOT OC2OC2/ES  
 L176 4 S L175 AND ("(C3H4O2)NC3H4O2" OR C7H1003 OR C12H2004)  
 L177 1 S L176 AND OC2/ES AND 2/NC  
 L178 15 S L175 NOT L176  
 L179 149 S L163 NOT L164, L165  
 L180 148 S L179 NOT "(C3H4O2)NC3H4O2"  
 L181 147 S L180 NOT 5919-74-4/CRN  
 L182 140 S L181 NOT OC2OC2/ES  
 L183 26 S L182 AND (C12H1807 OR C12H1806 OR C18H3402 OR C6H1203 OR C8H1  
 SEL RN 2 4-9 11 12 14-16 18-21 26  
 L184 9 S L183 NOT E124-E140  
 L185 8 S L184 NOT 497261-73-1  
 L186 17 S L183 NOT L184  
 L187 114 S L182 NOT L183  
 L188 113 S L187 NOT C15H2408  
 L189 29 S L188 AND (C10H1404 OR C16H2507 OR C11H1605 OR C10H1405 OR C16  
 SEL RN 1 2 4 8 9 27 28  
 L190 22 S L189 NOT E141-E147  
 L191 84 S L188 NOT L189  
 L192 1380 S L162 NOT L163-L191  
 L193 0 S L192 AND (75-21-8 OR 25322-68-3 OR 107-21-1 OR 75-56-9 OR 253  
 L194 0 S L192 AND C2H4O  
 L195 0 S L192 AND C3H6O  
 L196 3981 S L22 AND (75-21-8 OR 25322-68-3 OR 107-21-1 OR 75-56-9 OR 2532  
 L197 9370 S L22 AND (C2H4O OR C3H6O)  
 L198 10243 S L196, L197  
 L199 1749 S L30 AND L198  
 L200 1566 S L90 AND L198  
 L201 3196 S L199, L200  
 L202 STR  
 L203 9 S L202 CSS SAM SUB=L201  
 L204 148 S L202 CSS FUL SUB=L201  
 L205 3048 S L201 NOT L204  
 L206 3001 S L205 NOT (OC2OC2 OR OCOC OR OCOC2 OR OCOC3 OR OC5)/ES  
 L207 130 S L206 AND OC4/ES  
 L208 66 S L207 NOT 108-31-6/CRN  
 L209 46 S L208 NOT 109-99-9/CRN  
 L210 20 S L208 NOT L209  
 L211 17 S L210 NOT 80-62-6/CRN  
 L212 6 S L211 NOT (52351-91-4 OR 1663-39-4 OR 688-84-6 OR 28677-93-2 O  
 L213 2871 S L206 NOT L207-L212  
 L214 2296 S L213 NOT (52351-91-4 OR 1663-39-4 OR 688-84-6 OR 28677-93-2 O  
 L215 2243 S L214 NOT (4767-03-7 OR 110-15-6)/CRN  
 L216 2240 S L215 NOT "(C3H4O2)NC3H4O2"  
 L217 2229 S L216 NOT "(C2H4O)NC12H1807"  
 L218 2010 S L217 NOT 80-62-6/CRN

L219 2008 S L218 NOT "(C2H4O)NC16H32O3"  
 L220 1789 S L219 NOT (26915-72-0 OR 37674-57-0 OR 97-88-1 OR 110-16-7 OR  
 L221 1755 S L220 NOT 32171-39-4/CRN  
 L222 1753 S L221 NOT "(C2H4O)N(C2H4O)N(C2H4O)NC18H22O10"  
 L223 10 S L222 AND C13H24O2  
 L224 1743 S L222 NOT L223  
 L225 STR L46  
 L226 15 S L225 CSS SAM SUB=L224  
 L227 289 S L225 CSS FUL SUB=L224  
 L228 1454 S L224 NOT L227  
 L229 80 S L228 AND (BR OR I OR F)/ELS  
 L230 1374 S L228 NOT L229  
 L231 59 S L230 AND CL/ELS  
 L232 53 S L231 NOT ("(C2H4O)NC17H30O6" OR C4H4CL2)  
 L233 50 S L232 NOT ("(C2H4O)NC13H19CL07" OR "(C2H4O)NC20H36O6" OR "(C2H  
 L234 48 S L233 NOT C2H2CL2  
 L235 42 S L234 NOT (C3H6O3 OR C4H5CLO OR CH2CL2 OR C12H20O4)  
 L236 1315 S L230 NOT L231  
 L237 454 S L26, L55, L57, L77, L110, L118, L136, L139, L159, L166, L172, L177, L178,  
 SAV TEMP BERN551NA/A L237  
 L238 1291 S L236 NOT L237  
 SAV TEMP L238 BERN551NB/A

FILE 'HCAPLUS' ENTERED AT 10:30:05 ON 25 OCT 2007

L239 1452 S L237  
 L240 3495 S L238  
 L241 37 S L1-L11 AND L239  
 L242 86 S L1-L11 AND L240  
 L243 1 S L241, L242 AND PY<=2003 NOT P/DT  
 L244 80 S L241, L242 AND (PD<=20030403 OR PRD<=20030403 OR AD<=20030403)  
 L245 5 S L1 AND L243, L244  
 L246 6 S L1, L245  
 L247 7 S L243, L246  
 L248 23 S L244 AND A61L/IPC, IC, ICM, ICS  
 E NONWOVEN/CT  
 E E8+ALL  
 L249 20215 S E2+OLD, NT  
 E SUPERABSORBENT/CT  
 E E4+ALL  
 L250 1913 S E4+OLD  
 E HYDROGEL/CT  
 E E5+ALL  
 L251 11062 S E9+OLD  
 E MEDICAL GOODS/CT  
 E E3+ALL  
 L252 47868 S E4+OLD, NT  
 E PACKAGING/CT  
 E E3+ALL  
 L253 1252 S E1  
 E E1  
 E E5+ALL  
 L254 58181 S E2+OLD, NT  
 E E14+ALL  
 L255 37600 S E1+OLD, NT  
 L256 24 S L243, L244 AND L249-L255  
 L257 27 S L247, L248, L256  
 L258 5 S L257 NOT PLASTIC?/SC, SX  
 L259 4 S L258 NOT COATING?/SC  
 L260 22 S L257 AND PLASTIC?/SC, SX  
 L261 26 S L259, L260

SEL HIT RN

FILE 'REGISTRY' ENTERED AT 10:41:17 ON 25 OCT 2007

L262 46 S E1-E46

FILE 'HCAPLUS' ENTERED AT 10:42:46 ON 25 OCT 2007

L263 4772 S L239,L240 NOT L241,L242  
 L264 699 S L263 AND PY<=2003 NOT P/DT  
 L265 3196 S L263 AND (PD<=20030403 OR PRD<=20030403 OR AD<=20030403) AND  
 L266 3895 S L264,L265  
 L267 13 S L266 AND L249  
 L268 19 S L266 AND L250  
 L269 52 S L266 AND L251  
 L270 96 S L266 AND L252  
 L271 2 S L266 AND L253  
 L272 72 S L266 AND L254  
 L273 34 S L266 AND L255  
 L274 257 S L267-L273  
 L275 194 S L274 NOT PLASTIC?/SX,SX  
 L276 125 S L275 NOT PLASTIC?/SC,SX  
 L277 69 S L275 NOT L276  
 L278 65 S L277 NOT (RESINS OR TECHNOLOGY)/SC,SX  
 L279 63 S L274 NOT L275  
 L280 22 S L279 AND ?ABSOR?  
 L281 15 S L280 NOT (COATING? OR GASKET? OR THERMODYNAMIC? OR HEAT? OR S  
 L282 15 S L279 AND HYDROGEL  
 SEL AN 2 3  
 L283 13 S L282 NOT E47-E50  
 L284 29 S L279 NOT L280-L283  
 SEL AN 27  
 L285 1 S L284 AND E51-E52  
 L286 91 S L278,L281,L283,L285  
 L287 47 S L286 AND ?ABSOR?  
 L288 44 S L286 NOT L287  
 SEL AN 36 40 44  
 L289 3 S L288 AND E53-E58  
 L290 3 S L285,L289  
 L291 50 S L287,L290  
 L292 8 S L283 NOT L291  
 L293 58 S L291,L292  
 SEL HIT RN

FILE 'REGISTRY' ENTERED AT 10:54:59 ON 25 OCT 2007

L294 71 S E59-E129  
 L295 12 S L294 AND (C6H804 OR C8H1402 OR C14H18010 OR C15H20010 OR C19H  
 L296 3 S L294 AND ("(C2H4O)NC6H802" OR "(C2H4O)NC7H1002")  
 L297 56 S L294 NOT L295,L296

FILE 'HCAPLUS' ENTERED AT 11:00:51 ON 25 OCT 2007

L298 1643 S L297  
 L299 221 S L298 AND PY<=2003 NOT P/DT  
 L300 1095 S L298 AND (PD<=20030403 OR PRD<=20030403 OR AD<=20030403) AND  
 L301 1316 S L299,L300  
 L302 143 S L301 AND L249-L255  
 L303 49 S L302 NOT PLASTIC?/SC,SX  
 L304 94 S L302 NOT L303  
 L305 40 S L304 NOT L293  
 SEL AN 1 5 7-12 14 19  
 L306 10 S L305 AND E130-E149  
 L307 54 S L304 NOT L305

L308	64 S L306,L307
L309	54 S L308 AND ?ABSOR?
L310	30 S L308 AND ?HYDROGEL?
L311	63 S L309,L310
L312	64 S L308,L311
L313	26 S L312 AND MEDICAL?
L314	64 S L312,L313

FILE 'REGISTRY' ENTERED AT 11:05:01 ON 25 OCT 2007

FILE 'HCAPLUS' ENTERED AT 11:05:13 ON 25 OCT 2007

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